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Publication

REPORT
OF THE ROYAL COMMISSION
TO INQUIRE INTO
Railways and Transportation in
Canada

1931-2



OTTAWA
F. A. ACLAND
PRINTER TO THE KING'S MOST EXCELLENT MAJESTY
1932

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ORDER IN COUNCIL P.C. 2910

CERTIFIED to be a true copy of a Minute of a Meeting of the Committee of the Privy Council, approved by His Excellency the Governor General on the 20th day of November, 1931.

The Committee of the Privy Council have had before them a joint report, dated 19th November, 1931, from the Right Honourable Sir George H. Perley, the Acting Prime Minister, and the Minister of Railways and Canals, submitting:

That the Select Standing Committee on Railways and Shipping of the House of Commons of Canada at the recent session of Parliament in its final report, dated July 16, 1931, to the House of Commons, set out amongst other things, as follows:—

“Your Committee desire to call the attention of the House to the proposal made by Sir Henry Thornton at one of the sessions of the Committee. He referred to the serious position of the transportation business generally and recommended that a commission be appointed for the purpose of considering the whole question of Canadian transportation. Your Committee regard such a recommendation coming from such a source at this time as worthy of the serious consideration of the Government.”

Having regard to the vital importance of transportation to the trade and commerce of Canada, the serious and continuing deficits of the Canadian National Railways System, and the diminished revenues of the Canadian Pacific Railway System, conditions which have been brought about in part by duplication of tracks, facilities and services of every kind and in part by competition by other modes of transportation, particularly motor vehicles operating on highways, the Ministers concur with the proposal that the whole subject be studied by Commissioners with the powers hereinafter set forth.

The Ministers, therefore, recommend as follows:—

1. That the Right Honourable Lord Ashfield, of the City of London, Eng.,
The Right Honourable Lyman Poore Duff, P.C., of the City of Ottawa, in the Province of Ontario,
Sir Joseph W. Flavelle, Bart., of the City of Toronto, in the Province of Ontario,
Beaudry Leman, C.E., of the City of Montreal, in the Province of Quebec,
Leonor Fresnel Loree, C.E., of the City of New York, in the United States of America,
Walter Charles Murray, LL.D., of the City of Saskatoon, in the Province of Saskatchewan; and
John Clarence Webster, M.D., of Shediac, in the Province of New Brunswick,
be appointed Commissioners under Part I of the Inquiries Act, and that the said The Right Honourable Lyman Poore Duff, P.C., be Chairman.
2. That the Commissioners inquire into the whole problem of transportation in Canada, particularly in relation to railways, shipping and communication facilities therein, having regard to present conditions and the probable future developments of the country, and report their conclusions and make such recommendations as they think proper.

3. That the Commissioners shall have all the powers vested in, or which can be conferred on, commissioners under the Inquiries Act, and that all or any of the powers which can be conferred under Part III of the Inquiries Act may be exercised by any three of the Commissioners.
4. That the Commissioners or any three of them shall have power to call before them such persons as they shall judge likely to afford any information on the subject, to call for information in writing and also to call for, have access to and examine all such books, documents and records as may afford the fullest information on the subject, and to inquire of and concerning the promises by all other lawful ways and means whatsoever.
5. That the Departments of the Government Service of Canada and the Board of Railway Commissioners for Canada shall afford the Commissioners and all persons acting under their authority or by their direction, such assistance and co-operation in the matters of the inquiry as the Commissioners may think desirable.
6. That the Commissioners shall report their findings and conclusions with the least possible delay.
7. That a Commission shall issue to the Commissioners in accordance with the terms hereof.

The Committee concur in the foregoing recommendations and submit the same for approval.

(Sgd.) E. J. LEMAIRE,
Clerk of the Privy Council.

THE ROYAL COMMISSION CANADA

GEORGE THE FIFTH, by the Grace of God of Great Britain, Ireland and the British Dominions beyond the Seas KING, Defender of the Faith, Emperor of India.
To all to whom these Presents shall come, or whom the same may in anywise concern.

GREETING:

WHEREAS pursuant to the provisions of Part I of the Inquiries Act, Revised Statutes of Canada, 1927, Chapter 99, His Excellency the Governor General in Council by Order P.C. 2910 on the twentieth day of November, in the year of Our Lord one thousand nine hundred and thirty-one, copy of which is hereto annexed, has authorized the appointment of Our Commissioners therein and hereinafter named to inquire into the whole problem of transportation in Canada, particularly in relation to railways, shipping and communication facilities therein, having regard to present conditions and the probable future development of the country; and has conferred certain rights, powers and privileges upon Our said Commissioners as will by reference to the said Order more fully appear.

Now know ye that by and with the advice of Our Privy Council for Canada, We do by these Presents nominate, constitute and appoint The Right Honourable Lord Ashfield, of the City of London, England; The Right Honourable Lyman Poore Duff, P.C., of the City of Ottawa, in the Province of Ontario; Sir Joseph W. Flavelle, Bart., of the City of Toronto, in the Province of Ontario; Beaudry Leman, of the City of Montreal, in the Province of Quebec, Civil Engineer; Leonor Fresnel Loree, of the City of New York, in the United States of America, Civil Engineer; Walter Charles Murray, of the City of Saskatoon, in the Province of Saskatchewan, Doctor of Laws; and John Clarence Webster, of Shediac, in the Province of New Brunswick, Medical Doctor, to be our Commissioners to conduct such inquiry.

TO HAVE, hold, exercise and enjoy the said office, place and trust unto the said Lord Ashfield, Lyman Poore Duff, Joseph W. Flavelle, Beaudry Leman, Leonor Fresnel Loree, Walter Charles Murray and John Clarence Webster together with the rights, powers, privileges and emoluments unto the said office, place and trust, of right and by law appertaining, during pleasure.

AND we do further appoint the said The Right Honourable Lyman Poore Duff, P.C., to be Chairman of Our said Commissioners.

AND for greater certainty but not so as to restrict the generality of the foregoing, Our said Commissioners are hereby authorized to engage the services of such accountants, engineers, technical advisers or other experts, clerks, reporters and assistants as they may deem necessary or advisable, and the services of Counsel to aid and assist them in such inquiry.

AND we do hereby require and direct Our said Commissioners to report to Our Governor General in Council their findings and conclusions with the least possible delay.

IN TESTIMONY whereof We have caused these Our Letters to be made Patent and the Great Seal of Canada to be hereunto affixed.

WITNESS: Our Right Trusty and Right Well beloved Cousin and Counsellor, Vere Brabazon, Earl of Bessborough, a Member of Our Most Distinguished Order of Saint Michael and Saint George, formerly Captain in Our Territorial Army, Governor General and Commander-in-Chief of Our Dominion of Canada.

At Our Government House in Our City of Ottawa, this twentieth day of November in the year of Our Lord one thousand nine hundred and thirty-one and in the twenty-second year of Our Reign.

By command,

THOMAS MULVEY,

Under-Secretary of State.

Report of the Royal Commission to inquire into Railways and Transportation in Canada

INTRODUCTION

To His Excellency the Governor General in Council.

MAY IT PLEASE YOUR EXCELLENCY:

1. We the commissioners appointed to inquire into the problem of transportation in Canada, have the honour to report that, in pursuance of the comprehensive terms of reference contained in the Order in Council, P.C. 2910, of November 20, 1931, we have conducted an inquiry into the pertinent aspects of the transportation situation. The more detailed and searching phase of our investigation has, by reason of the seriousness of railway affairs, concerned itself with the position of the two principal railway companies, whose problems, difficult enough under normal conditions, have been aggravated in recent years by the continued depression in world trade. A factor of growing importance also has been the rapid development of mechanized road transport, which has already deprived the railways of much short distance passenger and freight traffic. Within the limits of recognized constitutional authority in such matters we have given consideration to certain features of that development.

2. In the course of our investigations we have held eighteen sittings, occupying fifty days altogether, and have travelled over most of the main line mileage of the two chief railway systems. Throughout our journeys we were accompanied by the responsible officials of both railways, thus enjoying the advantage of almost constant discussion with them of matters relating to the inquiry, and of transportation problems more particularly affecting the territories traversed. Our itinerary included the principal centres of the various provinces, with the exception of Prince Edward Island, the only province of Canada in which railway competition may be said to be non-existent. In the case of Prince Edward Island the provincial Government kindly indicated their willingness to transmit in writing any representations on the general question of transportation they might desire to make. With this exception we have had the benefit of direct conference with the government of each province, which has included, in most instances, a full statement by the provincial Prime Minister of any considerations of a special or local character affecting the subject of our inquiry. The expositions we have received in this way of provincial policy regarding highway construction and motor traffic have been comprehensive and valuable.

At all of the provincial capitals visited, and also at Vancouver, Calgary, Montreal and Saint John, we have conducted, in addition, public hearings, duly advertised, at which representations from public bodies, labour and transport organizations and private individuals were invited and received. A list of witnesses appearing, and of persons or organizations who have filed submissions, is included as an appendix to our report.

CHAPTER I

1. OUTLINE OF THE DEVELOPMENT OF TRANSPORTATION IN CANADA¹

3. At this time Canada may be said to be completing the first century of the development of its transportation facilities on a commercial scale. By the early thirties of the nineteenth century 6,000 miles of post and military roads were constructed, the Lachine, the Rideau and the Welland canals completed, and the construction of the Cornwall canal begun.

4. These canal developments were the result of the successful application of steam to the purposes of navigation. The use of the steam locomotive made possible the establishment, in 1836, of the first Canadian railway. These early roads and railways in general served territory adjacent to the inland waterways and for many years there existed, during the season of navigation, intense competition between these two agencies of transport.

5. This contest continued for many years, but eventually the waterways became of secondary importance. Now, after a long period of unquestioned supremacy, the railways, in turn, find their sphere of influence challenged by the ubiquitous motor vehicle; at the same time the enlargement of navigation facilities lends renewed importance to our inland waterways as an avenue of commerce.

6. In addition, we are on the threshold of a noteworthy development of aerial activities, which is hastening the exploitation of a rich and largely unprospected hinterland.

7. From the earliest days of settlement in Canada, the governing bodies of the country have spent public moneys, extended public credits, and made grants of publicly-owned lands, to provide or assist in providing water, road and rail transportation facilities.

8. Aids to navigation and the construction of canals and their maintenance have been exclusively a charge upon the public treasury. The use of these navigation facilities has, since 1904, been accorded, free of tolls, to the shipping of all countries. A certain revenue is, however, provided by leases, rentals, wharfage and elevator fees.

9. The promise of railway construction formed an integral part not only of the Confederation arrangement of 1867, but also of the terms upon which Prince Edward Island and British Columbia later entered the Dominion. The obligation to the Maritime Provinces was discharged by building entirely at public cost, the Intercolonial Railway from Halifax, N.S., to the St. Lawrence at Rivière du Loup, by the construction of the Prince Edward Island Railway, and the provision of a train ferry between that Island and the mainland.

10. The agreement to connect British Columbia with Eastern Canada by a railway from the Pacific Ocean was fulfilled by the building of the Canadian Pacific Railway. Failing to interest private capital in this project the Govern-

¹ The development of transportation in Canada, and particularly of the railways, has been influenced to such an extent by considerations broadly political in character that a knowledge of the historical background of Canadian transportation is indispensable to an adequate appreciation of the present situation. Since no history of the subject, at once complete and concise, is publicly available, an historical outline is provided, as a necessary introductory feature, reserving for inclusion as an appendix a more extended and detailed historical treatment of the development of Canadian Transportation as a whole.

ment undertook the work as a public enterprise. Later a syndicate, which afterwards developed into the Canadian Pacific Railway Company, entered into an arrangement with the Government to construct this transcontinental line in ten years, from 1880 to 1890. The agreement provided that the country subsidize the company by a gift of twenty-five million dollars, twenty-five million acres of land, and of the railway lines already constructed with public moneys at a cost exceeding thirty-seven million dollars.

11. The company carried through its undertaking in five years in place of ten, during which time the Government paid the Canadian Pacific \$10,189,521 for 6,793,000 acres of land relinquished by the company, and guaranteed securities of the company to an amount of \$15,000,000 to assist its finances over a difficult period. The company paid the guaranteed bonds upon maturity, and the country was relieved from the responsibility of the guarantee.

12. Eighteen years after the completion of the Canadian Pacific, Parliament (in 1903) authorized the building of the National Transcontinental Railway from Winnipeg, Manitoba, to Moncton, New Brunswick, as a part of the Grand Trunk Pacific project. In 1911, the construction of the Hudson Bay Railway was undertaken, also as a government enterprise.

The three railways, the Intercolonial (including the Prince Edward Island line), the National Transcontinental, and the Hudson Bay, embodying 4,650 miles, constructed exclusively with public moneys, have been operated by or on behalf of the Government of Canada. While prior to 1917 the Intercolonial in certain years paid operating expenses, the three railways have earned nothing by way of interest upon the total investment, which, together with certain deficits on operation, now total \$512,000,000.

13. Some years after the completion of the Canadian Pacific Railway, construction was commenced as a private enterprise, upon a line of railway running from Winnipeg in a northwesterly direction, with Edmonton as its objective, and easterly to Port Arthur, Ontario. This line came to be known as the Canadian Northern Railway. It secured substantial cash subsidies, guarantees and land grants from the Dominion Parliament, provincial legislatures and from municipalities. By 1901, the line had been completed easterly to Port Arthur; and by 1905, westerly to Edmonton, Alberta.

14. In 1903, the Grand Trunk Railway, which had been operating for over fifty years in Ontario and Quebec, and owned direct lines from Ontario through the States of Michigan and Illinois to Chicago, determined to extend its lines to the Pacific coast of Canada. They made application to the federal Government for a charter to construct the Grand Trunk Pacific from Winnipeg to the Pacific coast, and to make connection from Eastern Canada to Winnipeg through the United States by way of the company's Chicago lines, and by securing running rights over United States railways to the border of Manitoba.

15. The application was refused, but an alternative arrangement was proposed by the Government which contemplated the construction of the Grand Trunk Pacific from Winnipeg to the Pacific coast, with an eastern connection to be provided through a publicly-owned (National Transcontinental) line from Winnipeg to Moncton, N.B., via the city of Quebec.

If, in 1903, the Grand Trunk Railway Company in the east, and the Canadian Northern Railway Company in the west, had been told they must come together and constitute a second transcontinental line, the country would not have been called upon to face the present gravely alarming situation, while a powerful corporation, with a serviceable railway from ocean to ocean, owned and operated by private capital, would, with the Canadian Pacific and Intercolonial, have given the needed transportation facilities for the present and reasonable future requirements of Canada.

16. The ultimate decision of Parliament led to two transcontinental railways being constructed in addition to the already established Canadian Pacific Railway:—

The first, by authorizing the construction of the Grand Trunk Pacific Railway from Winnipeg west to the Pacific coast, which was financially assisted by important guarantees by the federal Government, together with the construction of the National Transcontinental Railway from Winnipeg east to Moncton, via the city of Quebec, as a public enterprise at public cost. At Moncton the new line would connect with the Intercolonial, through to Halifax, and also give access to the port of Saint John, N.B.

The second, by authorizing the Canadian Northern Railway (which received substantial cash subsidies from the Dominion Government, and guarantee of securities) to continue its line westerly from Edmonton to the Pacific coast, and to extend its line easterly from Port Arthur through the provinces of Ontario and Quebec.

Thus there developed by the authority of the Parliament of Canada, the tragedy of three transcontinental railways (providing, with branches, over four thousand miles of unnecessary lines), when two were all the business of Canada required or could support.

17. The outbreak of war in 1914 found the uncompleted transcontinental lines in serious financial difficulties. In the interval between 1914 and 1916 substantial amounts by way of direct loans and the guarantee of securities were obtained from the Dominion Government. In 1916 the position of the railways was such that the Government appointed a Royal Commission to inquire into the general problem of transportation in Canada, with particular reference to the status of each of the three transcontinental railways, the question of their reorganization, or their possible acquisition by the State.

18. The Royal Commission issued its report in 1917, and a majority of the Commissioners recommended that the control of the Canadian Northern, the Grand Trunk and the Grand Trunk Pacific railways, together with that of the original government lines, be transferred to a new body to be known as the Dominion Railway Company, and to be operated "as one united system on a commercial basis under their own politically undisturbed management, on account of, and for the benefit of, the people of Canada".

19. Before these recommendations had the consideration of Parliament, the affairs of the Canadian Northern became critical. The Dominion Government having already provided, or assumed responsibility for, the bulk of the capital of that company, determined to acquire the property as recommended by the Royal Commission. At that time the Government owned 40 per cent of the Canadian Northern common stock, acquired in return for subsidies and guarantees of securities, and in November, 1917, legislation authorizing the purchase of the remaining 60 per cent of the common stock was adopted by Parliament. Arbitrators were appointed to determine the value of these remaining shares, but a limit was set by Parliament of \$10,000,000. Although the arbitrators awarded a somewhat higher amount the sum paid was \$10,000,000.

20. The Government, also as recommended by the Royal Commission, declined to release the Grand Trunk from its Grand Trunk Pacific obligations and opened negotiations, early in 1918, for the acquisition of both properties. The proposed basis was that the Dominion Government should assume all of the liabilities and obligations of both companies and pay to the Grand Trunk Railway in perpetuity an annual sum equal to the average dividends of the previous ten years. This arrangement was not accepted by the Grand Trunk Railway and negotiations were in progress when, in March, 1919, the Grand Trunk Pacific found itself unable to carry on, and, its parent company, the

Grand Trunk Railway Company, being unable to provide the necessary financial assistance, operation of the railway was continued by the Canadian Northern Board acting on behalf of the Minister of Railways as Receiver of the Grand Trunk Pacific Railway Company. The Canadian Northern Board was at that time operating the original government railways under the title "Canadian National Railways."

21. In October, 1919, the Government agreed to become responsible in perpetuity for the dividends on certain Grand Trunk debenture and guaranteed stocks, and to acquire, at a valuation to be determined by arbitration, the preference and common shares. The arbitration was concluded in September, 1921, and the majority of the arbitrators decided that the preference and common shares of the Grand Trunk Railway had "no value."

22. The effect of these acquisitions was to make the country responsible for the ownership and operation of more than 22,000 miles of railway, including the National Transcontinental and Intercolonial railways. Since then various railway lines, chiefly in Quebec, Nova Scotia and New Brunswick, have been purchased which, together with the construction of branch lines in the Prairie Provinces and elsewhere, has increased the mileage owned and operated by the Government to 23,880 miles.

23. In 1923, these publicly-owned railway properties, together with certain subsidiary corporations, were included in the Canadian National Railway System, under the control and direction of a President and Board of Directors appointed by the Governor General in Council.

24. The Dominion Parliament has voted unstinted financial support to the administrators of the National System. Not only have the requisitions of the Board of Directors been freely met, but the management have from time to time recommended, the Government has approved, and Parliament has authorized and directed the construction of additional branch lines and the purchase of more or less bankrupt lines.

25. As a result, the Canadian Pacific Railway Company, the largest taxpayer in Canada, has been subjected to the competition of publicly-owned and operated railway lines, supported by the financial resources of the country. They had honourably discharged their original contractual obligations with Parliament, and the company's lines had played a great part in binding together the western and eastern provinces of the Dominion. By common consent, the company's administrators had brought faith, courage and invincible energy to the task of building its lines through the undeveloped west. The company's achievement commanded the admiration of both railway operators and the public, and has been a material factor in causing Canada to be favourably known upon three continents. Their operations brought profit to shareholders, and the enterprise became a national asset of acknowledged value and importance to the Dominion.

26. Confronted with the unrestrained competition of the publicly-owned railway, the Canadian Pacific claimed that to protect their business it was necessary that they should meet their competitors in the construction of branch lines in the prairie sections, and generally in the character of service and equipment incident to the activity of their aggressive rival.

27. If good sense had prevailed the executive officers of the two systems would, in 1923, have planned together to meet the transportation requirements of the country, and would have refused to promote or permit irrational and wasteful competition. Irrational competition in branch line construction, and in widely varied services, developed and intensified inherently unhealthy operating conditions in the Canadian National Railways, incident to ownership and operation of one unrequired transcontinental line. These conditions, with

the unexpected severity of a long period of depression, and consequent reduction in tonnage and passengers available for both railways, have imposed upon the Canadian public, as owners of the National System, capital expenditures and losses of great magnitude, and have caused anxiety and deep concern to the holders of securities of the Canadian Pacific Company.

28. Government ownership of railways on a large scale as a national policy was not contemplated or planned by any Government and was not submitted for adoption to the people of Canada. But when in 1917, the Government refused to permit the Canadian Pacific Railway Company to negotiate for the majority shares of the Canadian Northern, there was practically no escape from Government ownership of all the railways now comprised within the Canadian National Railway System. The consequent completion and operation of the hitherto privately-owned and operated lines with the publicly-owned railways followed as a matter of course. Thus by a combination of contractual obligations and parliamentary measures, the country was projected into the railway business on a large scale.

II. ADMINISTRATION, CANADIAN NATIONAL RAILWAYS, 1923-1931

29. As will be seen from the preceding outline of their development, the Canadian National and the Canadian Pacific Railway systems were established under wholly different conditions. In comparing the results of the operations of the two companies, this important difference should at all times be kept in mind.

30. The Canadian Pacific Company has been developed as a single, unified system. The mileage added has been complementary to existing mileage.

31. The Canadian National Railway, on the other hand, represents for the most part the consolidation of lines that were constructed by private companies and which were, in many respects, competitive systems. Hence there came to be included within the consolidated system extensive track mileages which are duplications. This applies not only to the main line, but to branch lines. In short, while the mileage of the Canadian Pacific has been complementary, the Canadian National system, developed under different conditions, has been handicapped by heavy mileage of non-complementary lines, and the elimination of these duplications has yet to be accomplished.

32. Following upon the consolidation of many lines into the Canadian National system, in 1923, the railway has been energetically administered, and has deservedly won approval by its success in welding together the various working forces of the separate companies in the consolidated system.

33. Running through its administrative practices, however, has been the red thread of extravagance. The disciplinary check upon undue expenditure, inherent in private corporations because of their limited financial resources, has not been in evidence. Requisitions of the management have been endorsed by governments, and successive parliaments have voted money freely, if not lavishly.

34. Within the railway organization there has been freedom in expenditure and encouragement in plans for expansion and extension of services which were inconsistent with prudent administrative practice. The administration failed to realize that this country, with the greatest railway mileage in the world in relation to population, could not afford further capital and maintenance expenditures for unwarranted branch lines, for de luxe services, for unrequired hotels, for the building of ships in competitive service to be shortly abandoned; and, generally, for costly adventures in competitive railways out of proportion to the needs of the country.

35. There has been in the country a general sense of expectancy that the publicly-owned enterprise should give all and sundry the railway service desired, and there is no evidence that the representatives of the people in Parliament exercised any appreciable restraint upon railway estimates placed before them.

III. CANADIAN NATIONAL FINANCING

36. The cash outlay of the Dominion Government and the guarantee of securities for the railways now comprising the Canadian National System had, up to December 31, 1931, amounted to \$2,536,665,089. This sum includes amounts expended on the Eastern Lines of the Canadian National System and on the Hudson Bay Railway, a Government enterprise which is operated by the Canadian National management on behalf of the Government.

(a) *Cash Outlay—*

Investment in Government Railways.....	\$	390,751,676	
Deficits of Government Railways (to December 31, 1922).....		52,900,955	
Working capital for Government Railways.....		15,748,922	
Cash subsidies to Railways.....		44,055,120	
Cash loans to Canadian National System (in which are included operating deficits).....		639,414,489	
Deficits on Eastern Lines (excluding 20% reduction account Maritime Freight Rates).....		26,081,222	
Acquisition of Canadian Northern stock.....		10,000,000	
Other payments.....		22,508,815	
			\$ 1,201,461,199

(b) *Credit: Liabilities outstanding—*

Guarantees of Railway securities.....	\$	970,562,290	
Unguaranteed (nominally) Canadian National Railways securities..		305,894,917	
Liabilities of Northern Alberta Railways.....		10,000,000	
			\$ 1,286,457,207
Total, Railways now comprising Canadian National System.....			2,487,918,406
Hudson Bay Railway and Terminals.....			48,746,683
Grand total.....			\$ 2,536,665,089

37. It will be observed that the Dominion Treasury has expended on or furnished to these publicly-owned railway properties cash amounting to one billion two hundred and one millions of dollars (\$1,201,000,000) exclusive of the Hudson Bay Railway.

38. The Treasury has charged, but has not received from the Canadian National Railways, simple interest upon its cash loans. There is no reason to believe that the capital sum will ever be repaid, or that it will have at any time a realizable value.

39. The Dominion Treasury is also liable for payment of the guaranteed interest upon \$970,562,290 of bonds, as well as the principal sum at maturity. In addition, by provision for deficits and refunding, it accepts liability for the interest upon and principal sum of \$315,894,917 of bonds in the hands of the public, which, though not specifically guaranteed, are, in effect, a liability of the Government, as the bonds are secured by mortgage upon lines which are a necessary part of the National System.

40. In the absence of net revenue sufficient to cover the interest charges (amounting in 1931 to approximately \$56,000,000) upon the securities in the hands of the public, the country must continue to advance the cash necessary to pay the unearned interest. The country must also provide the cash necessary to meet all maturing obligations and all capital expenditures for additions, betterments and new equipment.

IV. COMPARATIVE EARNINGS

41. A comparison of the earnings of these two transcontinental systems for nine years (1923-1931 inclusive) is herewith set up:—

	Canadian National	Canadian Pacific
Mileage.....	23,880	16,886
REVENUE		
Transportation of—		
Freight.....	\$ 1,714,051,687	\$ 1,278,281,397
Passengers.....	321,530,922	303,421,444
Mail.....	33,158,717	34,177,966
Express.....	124,337,077	97,887,917
Other services, including telegraph, storage, freight, and baggage, demurrage, switching, etc.....	144,715,491	172,034,966
<i>Total Operating Revenue</i>	\$ 2,337,793,894	\$ 1,885,803,690
DEDUCT OPERATING EXPENDITURES		
Maintenance of roadway and structures.....	\$ 433,085,344	\$ 279,021,976
Maintenance of rolling stock.....	449,367,762	319,010,624
Sundry Traffic Expenses, solicitation of business, publishing and filing tariffs, etc.....	66,025,579	54,375,038
Transportation Expenses, including wages of train crews, locomotive fuel, services at stations, etc.....	1,023,650,171	745,349,913
Miscellaneous operations, including dining service, grain elevator opera- tion, etc.....	21,913,637	32,996,863
General Expenses, including salaries and expenses of officers and clerks, etc., legal expense, etc.....	73,162,366	43,170,152
Less Credit for that portion of these expenses incurred in making im- provements, trains carrying construction materials, etc.....	10,622,812	705,838
<i>Total Operating Expenses</i>	\$ 2,056,582,047	\$ 1,473,218,728
<i>Operating Surplus</i>	\$ 281,211,847	\$ 412,584,962
EXPENDITURES DEDUCTED FROM OPERATING SURPLUS		
Taxes.....	45,426,397	47,980,820
Uncollectable revenue written off.....	441,313	Dr. 293
Rentals for rolling stock hired less rentals received from others.....	Dr. 23,794,451	Cr. 15,443,971
Rentals paid less rentals received in connection with properties used jointly with other carriers.....	Cr. 576,417	271,936
<i>Total Expenditures from Operating Surplus</i>	\$ 70,241,578	\$ 32,265,206
<i>Net Railway Operating Income</i>	210,970,269	380,319,756
<i>Add Net Income from properties not part of Transportation plant, but connected thereto, e.g., telegraphs, hotels, steamships, etc., also adjustments which affect the Income of the Period; and Canadian Pacific Railway pensions (included by Canadian National Railway in General Expense)</i>	\$ 8,759,749	\$ 54,698,993
<i>Amount available for payment of interest and dividends</i>	\$ 219,730,018	\$ 435,018,749
<i>Interest paid on securities in hands of public</i>	\$ 387,782,775	\$ 122,138,771
<i>Discount on securities not cleared</i>	\$ 14,389,776	
<i>Deficit</i>	\$ 182,442,533	
<i>Surplus available for Dividends</i>		\$ 312,879,978

V. THE FINANCIAL POSITION—BOTH SYSTEMS

42. Net income available for interest and dividends is the significant factor in the economic life of a railway system. In the case of the two Canadian railways there has been a marked fall in net income in the years since 1928. That the true picture may appear, figures are appended for the nine-year period 1923 to 1931 inclusive. These show in separate columns the net earnings from rail-

way operations after taxes have been met, the net income receivable after charges for hire of equipment, joint agreements, etc., had been met, and, finally, the interest demands.

The Canadian Pacific, in 1923 and for some years thereafter, was in a strong position in this respect, as the following statement shows:—

Year	Railway Operating Income	Net Income	Interest
1923.....	\$ 34,377,815	\$ 45,394,457	\$ 10,950,933
1924.....	33,947,358	43,378,187	11,502,733
1925.....	40,466,752	47,832,609	11,912,414
1926.....	46,481,423	52,670,173	12,321,890
1927.....	42,195,457	48,008,141	13,107,790
1928.....	55,527,884	61,864,295	13,007,722
1929.....	47,454,900	55,573,280	13,800,618
1930.....	37,935,359	52,467,008	16,769,154
1931.....	26,216,901	30,267,126	18,765,517

During these years dividends on preferred and common shares totalling \$278,941,381 were paid and \$36,375,124 added to surplus. In these figures, however, are included Special Income from Steamships, Lands, Mines and other investments amounting to \$65,382,600. It was not until 1931 that the decline in net income, coupled with the increase in interest charges on the funded debt, began to give concern by leaving an insufficient margin for dividends.

43. The reduction in net income from the peak of 1928 was more pronounced in the case of the Canadian National Railways, as will appear from the following:—

Year	Railway Operating Income or Deficit	Net Income or Deficit	Interest due Public
1923.....	\$ 17,082,972	\$ 13,501,649	\$ 35,041,380
1924.....	13,236,871	14,772,328	38,361,704
1925.....	28,746,699	30,443,853	40,438,235
1926.....	42,215,214	41,586,242	39,197,233
1927.....	36,712,344	36,325,419	40,526,096
1928.....	49,557,977	44,449,780	41,810,879
1929.....	36,370,098	32,095,275	45,503,979
1930.....	16,045,379	15,730,227	51,316,121
1931.....	(Deficit) 4,626,419	(Deficit) 5,282,650	55,587,145

From the foregoing it will be noted that the increasing demands for interest upon income account added greatly to the embarrassment of the Canadian National net position, whereas the reverse was the case with the Canadian Pacific, whose income from subsidiary sources was available to augment the net earnings. It will also be observed that the decline in the net income of the Canadian Pacific between 1928 and 1931 was only \$31,597,169, whereas that of the Canadian National declined by \$49,732,430. On the other hand, the interest charges of the Canadian Pacific over the same period increased by \$5,757,795, while those of the Canadian National increased by \$13,776,266.

Taking the years 1923 and 1931 of the nine-year period, the drop in net income in the case of the Canadian Pacific was \$15,127,331 and of the Canadian National, \$18,784,299. The interest charges grew from \$10,950,933 to \$18,765,517 over the same period in the case of the Canadian Pacific, and from \$35,041,380 to \$55,587,145 in the case of the Canadian National. The latter sum is the interest due the public only by the Canadian National and does not take in account advances from the Government, the interest on which in 1931

amounted to an additional \$32,643,624. In 1923 the interest on loans and advances from the Government amounted to \$30,157,943. Since reorganization there has been an increasing reliance upon railway borrowings under Government guarantee, and a lessening of cash loans from the public treasury.

The losses of the National System during the period 1923-1931 were:—

Excess of interest due public over Net Income.....	\$ 168,052,757
Interest on Government Loans.....	288,010,438
	<hr/>
	\$ 456,063,195

In arriving at this amount, and in accordance with established practice, no account is taken of interest on the capital investment in the Canadian Government Railways (i.e. the Intercolonial and National Transcontinental lines), nor have depreciation reserves been set up except in the case of lines operated in the United States.

VI. ACCOUNTING METHODS

44. In connection with the foregoing statement of operating results, and also with respect to the comparative statement of capital expenditures which is to follow, it is necessary to make reference to certain differences in accounting methods of the two companies.

The accounting practice relative to new equipment differs. The Canadian National charges the entire cost of new equipment to its investment account. The Canadian Pacific charges part of the cost to a reserve account built up from its operating revenues, and the balance to its investment account. With both companies maintenance of equipment including major repairs and retirements of equipment are charged to current operating expenses. Since 1930 the practice of the Canadian Pacific has been uniform with that of the Canadian National in charging the entire cost of new equipment to its investment account.

45. Neither company provides reserves for depreciation for its Canadian lines; no depreciation is provided for in connection with telegraphs, hotels, steamships, or for rolling stock and other property of subsidiaries.

In the United States both railways follow the practice of setting up depreciation on equipment as prescribed by the Interstate Commerce Commission.

46. With the exception of provision for depreciation the Interstate Commerce Commission classification of accounts is followed by the Canadian National in its books, and in the form of its annual report. The Canadian Pacific, in setting up its accounts, does not follow the Interstate Commerce Commission classification, though it is claimed for the Canadian Pacific Railway that the classification is substantially the same, and that in all ordinary distribution of accounts there would be no major differences. But as regards Telegraphs, Express, Steamships and Pensions the Canadian Pacific has followed one method and the Canadian National another.

47. In the annual returns to the Bureau of Statistics of the Dominion both companies are obliged to follow a standard classification of railway accounts laid down by the Bureau. The form of return, while in general similar to that required by the Interstate Commerce Commission, does not include provision for depreciation reserves.

48. In our analysis of the Canadian National Railway accounts it has been necessary to recast the operating figures since 1927 to include the Eastern Lines with the System figures.

The Maritime Freight Rates Act of 1927, as applied to the Canadian National Railways accounts, results in the exclusion of all operations of the company east of Levis from the System figures and the production of a separate operating return.

No good purpose is served by such a division in the accounts, and a great deal of confusion arises through the present method of presenting two separate deficits.

This commission is of the opinion that the Maritime Freight Rates Act should be applied to the Canadian National Railways in a similar manner to that of other railways within the territory described in the Act, and that steps should be taken to provide for the inclusion of Canadian National Eastern Lines operating accounts as part of the System accounts, so that the Canadian National Income Deficit shall be all-inclusive.

CHAPTER II

CAPITAL EXPENDITURES

49. From the following statement of capital expenditures it will be seen that, in the nine-year period 1923-1931 inclusive, the investment account of the two systems was increased by \$805,122,311. This amount includes the construction and acquisition of branch lines, terminal developments, additions and betterments to roadways, improvements to rolling stock, and river services, coastal services, hotels, telegraphs and, in the case of the Canadian Pacific, ocean steamships. Of this total the Canadian National expended \$456,345,456, and the Canadian Pacific, \$348,776,855.

I. CAPITAL EXPENDITURES, 1923-1931

	Canadian National		Canadian Pacific
	\$	\$	\$
1. New lines constructed or acquired :			
a. In Canada	89,908,940		70,414,666
b. In United States.....	2,127,940		
		92,036,880	
2. Montreal Terminal Development (Chapter 12, 1929).....		14,636,877	
3. Additions and betterments to Roadway—			
Canada.....	108,745,244		79,605,428
United States Lines.....	33,766,047		
Central Vermont.....	7,431,807		
Separately operated railways.....			4,630,304
Total additions and betterments to roadway...		149,943,098	84,235,732
4. Rolling Stock—			
Canada.....	120,873,277		65,964,010
United States Lines.....	7,319,141		
Central Vermont.....	4,802,403		
		132,994,821	
5a. Lake and River Services—			
Canada.....	2,639,143		178,254
United States Lines.....	1,960,151	4,599,294	
5b. Railway Telegraphs—			
Canada.....	1,831,291		
U.S. Lines.....	545,868		
		2,377,159	
Total rail and Inland Water Lines.....		396,588,129	220,792,662
6. Investment in railways jointly owned by the two systems		17,935,558	16,559,800
7. Coastal Services.....		7,201,117	6,339,304
8. Hotels.....		22,153,824	46,887,999
9. Commercial Telegraphs.....		5,960,760	6,187,007
10. Investments in other companies.....		6,506,068	1,738,747
Total.....		456,345,456	298,505,519
11. Ocean Steamships.....			50,271,336
		456,345,456	348,776,855

II. BRANCH LINE EXPENDITURE

50. An outstanding feature of this large expenditure is the amount spent on branch lines. The two railways expended, during the nine-year period, \$162,451,546 in the construction and acquisition of branch lines totalling 5,018.60 miles. A policy of co-operation would have avoided a considerable

part of this expenditure, probably one-third. This mileage is equivalent to the provision of a line of railway extending from Halifax to Vancouver and back again to the Manitoba boundary.

This branch line expenditure may be summarized as follows:—

	Construction	Acquisition	Total
Canadian National Railways.....	\$ 73,256,570	\$ 18,780,309	\$ 92,036,879
Canadian Pacific Railway.....	65,067,288	5,347,378	70,414,666
Total.....	\$ 138,323,858	\$ 24,127,687	\$ 162,451,545

MILEAGE INVOLVED

Canadian National Railways.....	1,895.33	649.87	2,545.20
Canadian Pacific Railway.....	2,265.9	207.5	2,473.4
Total.....	4,161.23	857.37	5,018.60

51. The foregoing statement does not take into account the acquisition, in 1929, on joint account for the two systems, of the Northern Alberta railways from the Alberta provincial government, comprising 915 miles of line, and costing \$30,000,000.

52. Canadian National expenditures by provinces for lines constructed were as follows:—

Nova Scotia.....	\$ 3,755,699
Prince Edward Island.....	367,708
Quebec.....	9,056,573
Ontario.....	3,413,313
Manitoba.....	9,862,746
Saskatchewan.....	30,803,441
Alberta.....	8,658,296
British Columbia.....	5,210,854
Michigan (U.S.A.).....	\$ 7,128,630
Total Expenditure.....	\$ 73,256,570

53. Branch line expenditures by the Canadian Pacific, 1923-1931, by provinces, were:—

Quebec.....	\$ 3,971,062
Ontario.....	633,486
Manitoba.....	72,225
Saskatchewan.....	38,694,673
Alberta.....	18,135,401
British Columbia.....	3,560,441
Total Expenditure.....	\$ 65,067,288

III. COSTS OF BRANCH LINE CONSTRUCTION

	Canadian National		Canadian Pacific	
	Miles	Average cost per mile	Miles	Average cost per mile
Lines under construction January 1, 1923, placed in operation 1923-31.....	319.21	\$ 40,214	324.1	\$ 35,470
Lines started subsequent to January 1, 1923, placed in operation 1923-31.....	1,077.42	48,396	1,516.4	31,763
Lines under construction, December 31, 1931.....	498.70	51,640	425.4	30,229
Total.....	1,895.33	\$ 47,872	2,265.9	\$ 32,005

Excess cost Canadian National construction, 1,895.33 miles, at \$15,867 per mile.....\$ 30,073,201

54. It will be observed that the average cost per mile in the case of the Canadian National has shown a progressive increase rising from \$40,214 to \$51,640 over the period, while the average cost per mile of the Canadian Pacific over the same period has declined from \$35,470 to \$30,229. The cost of individual branch lines varies not only as between the two systems but as between branches of the same system; nevertheless, a majority of the lines were built in similar territory for like purposes. This difference in costs represents an addition to the annual interest charge of almost \$800 per mile.

IV. BRANCH LINE CONSTRUCTION POLICIES

55. Canadian railway development during the past decade has consisted almost entirely of the construction of branch lines and both companies have followed practically the same policy. Your commissioners have questioned the representatives of both lines as to justification for the construction or acquisition of this additional mileage. The explanations given are not such as to convince us that this policy has been sound or wise.

56. On behalf of the Canadian Pacific it was stated that the company had been forced to anticipate the building of branch lines, the construction of which might have been deferred without injury to the public, and that protective lines had had to be projected under a threat of invasion by the Canadian National.

57. The Canadian National stated that to refrain from branch line construction would result in the system being deprived of any opportunity for reasonable and proper development. Strategic territories, contiguous to their main lines, would be entered by their rival and, while admitting that they entered upon the construction of lines not immediately required, they defended this policy on the ground that to open up new territory in anticipation of settlement and immigration, and to maintain the company's relative position with regard to the rival transport enterprise, was in the long run justified.

58. To sum up, it is clear that there was intense rivalry between the two systems in new territory, particularly in the provinces of Saskatchewan and Alberta. The construction program of one company was responded to by an equal or greater program of construction of the other. The development of this territory did not meet expectations, and the railways now find themselves with additional traffic mileage and an increased burden of capital charge.

59. It would be fruitless at this stage to apportion the blame for the competition in branch line construction, but there is no doubt as to the disastrous effects of this competition, and it is imperative that conditions be imposed that will make impossible a repetition of the rivalry in the extension of railway mileage that marked the period from 1923 to 1931.

V. ACQUISITION OF BRANCH LINES BY PURCHASE

60. In 1914, the Government acquired the New Brunswick and Prince Edward Island Railway. This railway was necessary to provide a connection for the Prince Edward Island train ferry. In 1916, the Quebec and Saguenay Railway was added to the Government railways. Between 1918 and 1920, nine other short railways were acquired by the Government, making altogether an addition of eleven short railways to the Government railways. In 1929, a further six short railways in Eastern Canada were taken over by the Canadian National Railways. The total cost of these railways, including the amounts spent on betterments and improvements, amounts to approximately \$35,000,000.

RAILWAYS TAKEN OVER BY THE GOVERNMENT

Prior to 1918—			
Cost.....	\$	3,759,313	
Rehabilitation.....		3,800,373	
			\$ 9,559,686
1918 to 1920—			
Cost.....	\$	3,809,472	
Rehabilitation.....		2,832,187	
			6,641,659
Total.....	\$		16,201,345

RAILWAYS TAKEN OVER BY THE CANADIAN NATIONAL RAILWAYS

	Miles		Cost
	60-79		per mile
Inverness Railway.....			
Cost.....	\$	375,000	
Rehabilitation.....		243,396	
		\$ 618,396	\$ 10,173
Kent Northern.....	26-75		
Cost.....		60,000	
Rehabilitation.....		71,498	
		131,498	4,916
Gaspe Lines.....	202-38		
Cost.....		3,500,000	
Rehabilitation.....		487,581	
		3,987,581	19,703
St. John and Quebec Railway.....	158-27		
Cost.....		6,000,000	
		6,000,000	37,910
Quebec, Montreal and Southern.....	191-02		
Cost.....		5,920,361	
Rehabilitation.....		844,271	
		6,764,632	35,413
Montreal Tram Lines.....	10-68		
Cost.....		1,278,202	
		1,278,202	119,682
Total.....	649-89		18,780,309
Grand total.....		\$ 34,981,654	

61. In explaining the 1929 acquisitions it was stated by representatives of the Canadian National Railways that the "technical" recommendation to purchase came from the Canadian National management but that, with regard to some of them, it was recognized that they were not of advantage from a strictly railway point of view. All of them were, however, in a territory served by the Canadian Government Railways and were natural adjuncts to that system. It was also stated that the service on these short lines under private ownership had been, for the most part, unsatisfactory, and that this led to a strong public demand that the Government should take over the railways. This agitation finally resulted in the lines being taken over, although it was admitted that the condition of these roads and their earning power were such that they must be a burden on the railway system. The recommendation of the

management is understandable under the circumstances, but the commission believes that it would have been better had the Government assumed this burden directly and thus avoided saddling the railways with capital charges and operating expenses resulting from the purchase of railways based solely on a public policy.

62. During the years 1923 to 1931 the Canadian Pacific also took over four short lines, two in Western and two in Eastern Canada. The cost of these acquisitions was:—

	Miles		Cost per mile
Algoma Eastern Railway.....	86.1	\$ 3,462,500	\$ 40,215
Hereford Railway.....	22.5	46,378	2,061
Lacombe and Northwesterly Jackson-Breton..	72.0	1,773,700	24,635
Manitoba Great Northern.....	26.9	64,800	2,409
Total.....	207.5	\$ 5,347,378	

VI. HOTELS

63. The Canadian National and the Canadian Pacific Railways own twenty hotels and twelve summer resorts, and are financially interested in a number of other hotels and pleasure resorts. In the case of the Canadian National the hotels and resorts are operated as part of the railway organization; in the case of the Canadian Pacific they are separate organizations.

64. The Canadian National hotel investment, at December 31, 1931, amounted to \$31,828,234, and the Canadian Pacific, \$71,148,772, a total of \$102,977,006.

65. The following statements show the total investment in hotels at December 31, 1922, and also the investment at December 31, 1931. It will be seen from this statement that the Canadian National increased its investment in hotels during that period by 229 per cent and that the Canadian Pacific increased its investment by 193 per cent.

HOTEL INVESTMENT ACCOUNT—CANADIAN NATIONAL RAILWAYS

	As at December 31		Increase during Period
	1922	1931	
	\$	\$	\$
Charlottetown, Charlottetown, P.E.I.....		853,351	853,351
Pictou Lodge, Pictou, N.S.....		200,554	200,554
Nova Scotian, Halifax, N.S.....		2,440,928	2,440,928
Chateau Laurier, Ottawa, Ont.....	2,608,636	8,639,247	6,030,611
Highland Inn and Camps, Algonquin Park, Ont.....	179,515	173,334	6,181 (Dec.)
Minaki Lodge, Minaki, Ont.....		1,090,668	1,090,668
Nipigon Lodge, Lake Nipigon, Ont.....	24,086	37,639	13,553
Prince Arthur, Port Arthur, Ont.....	1,098,090	1,177,349	79,259
Prince Edward, Brandon, Man.....	499,472	523,080	23,608
Fort Garry, Winnipeg, Man.....	2,754,004	2,886,818	132,814
Grand Beach, Lake Winnipeg, Man.....	300,025	418,722	118,697
Macdonald, Edmonton, Alta.....	2,155,414	2,226,060	70,646
Jasper Park Lodge, Jasper, Alta.....	55,168	2,576,744	2,521,576
UNDER CONSTRUCTION			
Vancouver, Vancouver, B.C.....		5,958,812	5,958,812
Bessborough, Saskatoon, Sask.....		2,624,928	2,624,928
Totals.....	9,674,410	31,828,234	22,153,824

HOTEL INVESTMENT ACCOUNT—CANADIAN PACIFIC RAILWAY

	As at December 31		Increase during Period
	1922	1931	
	\$	\$	\$
Algonquin, St. Andrews, N.B.....	1,257,780	1,424,033	166,253
Banff Springs, Banff, Alta.....	2,741,763	8,844,372	6,102,609
Chateau, Lake Louise, Alta.....	1,645,934	3,413,804	1,767,870
Chateau Frontenac, Quebec, Que.....	4,085,216	8,871,703	4,786,487
Cornwallis Inn, Kentville, N.S.....		744,559	744,559
Empress, Victoria, B.C.....	1,592,017	5,512,396	3,920,379
Palliser, Calgary, Alta.....	2,790,984	4,615,502	1,824,518
Pines, Digby, N.S.....		940,081	940,081
Place Viger, Montreal, Que.....	918,079	951,486	33,407
Royal Alexandra, Winnipeg, Man.....	2,857,759	3,213,745	355,986
Royal York, Toronto, Ont.....		16,482,313	16,482,313
Saskatchewan, Regina, Sask.....		2,559,918	2,559,918
Vancouver, Vancouver, B.C.....	5,052,079	6,337,412	1,285,333
Crystal Garden, Victoria, B.C.....	284,322	284,322	
Camps and Rests.....	69,417	605,736	536,319
London, England.....		5,478,058	5,478,058
Miscellaneous.....	965,423	860,332	96,091 (Dec.)
Totals.....	24,260,773	71,148,772	46,887,999
Grand totals.....	33,935,183	102,977,006	69,041,823

66. The financial results of the operation of the hotels as shown by the following statements do not include any sums for interest on the investments nor for depreciation. It will be seen that the hotels belonging to the Canadian National show an actual operating loss of \$2,130,924 in the nine-year period. If interest on investment and an adequate sum for depreciation are included, this loss would be substantially increased. For the Canadian Pacific the statement shows an operating profit of \$7,468,827, but here again if interest on investment and an adequate allowance for depreciation are included this profit would be converted into a substantial loss.

CANADIAN NATIONAL RAILWAY HOTELS

	Revenues	Expenses including taxes	Operating loss
	\$	\$	\$
1923.....	1,790,969	1,953,689	162,720
1924.....	1,795,279	2,093,218	297,939
1925.....	2,005,935	2,082,301	76,366
1926.....	2,301,547	2,340,316	38,769
1927.....	2,586,024	2,599,146	13,122
1928.....	2,583,990	2,719,046	135,056
1929.....	2,989,013	4,077,587	1,088,574
1930.....	3,166,972	3,292,040	125,068
1931.....	2,951,630	3,144,940	193,310
	22,171,359	24,302,283	2,130,924

CANADIAN PACIFIC RAILWAY HOTELS

	Revenues	Expenses including taxes	Operating profit
	\$	\$	\$
1923.....	4,910,068	4,302,891	607,177
1924.....	5,100,341	4,556,110	544,231
1925.....	5,805,931	4,949,532	856,399
1926.....	6,135,343	5,139,341	996,002
1927.....	6,663,988	5,846,420	817,568
1928.....	7,354,118	6,385,018	969,100
1929.....	10,120,642	8,471,618	1,649,024
1930.....	9,646,557	8,926,931	719,626
1931.....	7,375,841	7,066,141	309,700
	63,112,829	55,644,002	7,468,827

NOTE:—The Canadian Pacific excludes investments on hotels and resorts where they do not hold control.

67. An analysis of investments in hotels reflects similar results from competitive conditions to those which prevailed between the two railways in the larger sphere of operations, with practically similar results—the Canadian National steadily increasing its investment despite increasing losses, and the Canadian Pacific adding to its investment to an even greater extent than its competitor, without commensurate return on the investment.

68. Both the Canadian National and the Canadian Pacific acted on the assumption that, while these hotel ventures had not been profitable in themselves, they might be essential from the standpoint of larger policy since they would afford the necessary stimulus to passenger traffic.

69. The Canadian Pacific has stated that in no case has that company built an hotel in any city where an hotel had already been erected by its competitor. This cannot be said of the Canadian National, but, in fairness to that company, it should be mentioned that their hotel at Winnipeg was constructed in connection with the Grand Trunk Pacific venture, and taken over with that property.

70. There are two modern hotels at Halifax where one would have been ample for the requirements of the public. The Canadian Pacific is interested to the extent of \$350,000 in the Lord Nelson Hotel, and the Canadian National has invested \$2,440,928 of public money in a terminal hotel originally estimated to cost one-half of that amount.

71. Duplication of hotel facilities on a large scale is also under way at Vancouver. There this commission held its sessions in the shadow of an immense hotel structure in course of erection for Canadian National Railways, on which \$5,958,812 has been expended to December 31, last, and \$4,750,000 additional will be required to complete. The Canadian Pacific has a first-class hotel almost directly opposite this new hotel, on which they have expended \$6,337,412.

72. Whether on the grounds of policy or for reasons which may have seemed convincing at the time, the fact remains that very large sums have been invested in hotels which were not justified from any point of view, investments which could have been avoided if there had been a spirit of co-operation on the part of the management of both systems. It is a deplorable example of a wasteful expenditure of public and private money and one that places a permanent serious financial burden upon both systems.

VII. COASTAL STEAMSHIP SERVICES

73. When the Canadian National Railways was constituted in 1923, it had a service of steamships on the Pacific coast between Vancouver and Prince Rupert with additional sailings to Alaska during the summer months. This service was established by the Grand Trunk Pacific Railway when that company extended its railway to Prince Rupert. For a time it also provided a steamship service between Vancouver, Victoria and Seattle in what was generally known as the "Tri-City Service", a service which had already been provided by the Canadian Pacific Railway. This tri-city service was abandoned when the Grand Trunk Pacific got into financial difficulties, and consequently the service between Vancouver, Victoria and Seattle was provided only by the Canadian Pacific Railway with a fine fleet of steamers giving a satisfactory service.

74. Up to 1929 the Canadian National Railway steamers on the west coast, providing, as already explained, a service between Vancouver and Prince Rupert, consisted of four boats representing an investment of \$1,480,000. The operating net revenues had always been negligible and in one year there was an actual operating loss. At no time were the earnings sufficient to provide any return upon the capital invested.

75. Nevertheless, the Canadian National Railways decided to extend and improve their coastal services and in their budget for 1929 a sum of \$5,235,000 was included for the purchase of four steamships for use on the Pacific coast. The reasons given were that the traffic, particularly tourist traffic, on the Vancouver-Prince Rupert-Alaska route was increasing, that the steamships on this service were old, and that at times it was difficult to handle all of the traffic that offered. It was also stated that the Prince Rupert, one of the original fleet, had been damaged in an accident, and that, during the time it was laid up, traffic had to be refused. The estimates were adopted and orders placed for the ships.

76. The vessels were constructed at a cost which exceeded the estimates by \$1,500,000. The desire for increased speed and luxurious equipment beyond that provided by their competitor, the Canadian Pacific Railway, explains not only this increase but also the fact that the approximate cost of each vessel exceeded the average cost of the Canadian Pacific vessels by roundly \$900,000. The following tables show the expenditure for each company and for each vessel within the period 1923-1931:—

CANADIAN NATIONAL		CANADIAN PACIFIC	
	\$	<i>Pacific Coast</i>	\$
Prince Henry.....	2,160,347	Princess Elizabeth.....	1,128,944
" David.....	2,140,868	" Joan.....	1,127,324
" Robert.....	2,193,375	" Kathleen.....	1,280,866
" Charles.....	285,541	" Louise.....	1,400,000
" Rupert.....	10,465	" Marguerite.....	1,258,889
" George.....	10,497	" Elaine.....	639,539
" John.....	5,053	" Nora.....	633,559
" William.....	170,491	Other.....	1,240,756
Other.....	490,833	Retirements.....(Cr.)	3,567,313
Retirements.....(Cr.)	266,353		
		<i>Bay of Fundy</i>	
		Princess Helene.....	1,176,738
Totals.....	7,201,117		6,339,302

77. Two of the four new boats, costing \$4,300,000, were placed on the "Tri-City Service" between Vancouver, Victoria and Seattle, in competition with the Canadian Pacific steamships engaged on that service. Improvements

to the docks were found to be necessary for the accommodation of the new vessels and roundly \$775,000 was spent for this purpose. While the improvements were being made to the dock at Vancouver, the work was swept by fire, and the dock had to be rebuilt at an additional cost of \$228,000, bringing the total outlay for improved dock accommodation to more than \$1,000,000. The capital investment in vessels and improvements to docks increased from \$1,469,000 in 1928 to \$8,176,582 at the end of 1930.

78. The "Tri-City Service" of the Canadian National was inaugurated in August, 1930, and was discontinued in September, 1931. The operations on the Pacific coast as a whole, increased the annual loss to the Canadian National System from \$98,248 in 1928 to \$673,218 in 1930. These figures include interest, but allow nothing for depreciation. The net income of the Canadian Pacific from services on the Pacific coast fell from \$1,521,000 in 1929 to \$731,600 in 1930.

79. It is impossible to believe that any public interest was served by this duplication of coastal services. Any success that might have come to the Canadian National could only have been largely at the expense of the Canadian Pacific.

The Canadian National was at some disadvantage in not having a service of steamships under its own control, but this situation could have been met had the managements of the two systems been willing to enter into a working arrangement. This is another instance where a willingness to co-operate would have avoided a sacrifice of funds and obviated the heavy losses which fell upon both systems.

VIII. INCREASE IN ASSETS AND LIABILITIES

80. From January 1, 1923, to December 31, 1931, the Canadian National increased its total assets by \$452,325,052, and its total liabilities by \$922,430,755. The details of the increase in assets are as follows:—

CAPITAL ASSET ACCOUNTS

Property Investment (including railway rolling stock).....	\$ 390,314,679
Hotels.....	22,153,824
Ocean and Coastal Steamships.....	7,201,117
Advances to controlled and affiliated companies, and insurance premiums.	45,767,052
Sinking Funds.....	15,078,743
	<hr/>
	\$ 480,515,415
Less decrease in investments (Non-capital) current and deferred assets and unadjusted debit accounts.....	28,190,363
	<hr/>
	<u>\$ 452,325,052</u>

The increase of liabilities consisted of increases in the amount of:—

CAPITAL LIABILITY ACCOUNTS

Funded Debt due public.....	\$ 471,954,063
Government Loans.....	132,468,521
Government appropriations account Canadian Government Railways....	5,729,299
Government assumption of Canadian National Railways Eastern Lines deficits.....	26,861,713
Accrued unpaid interest on Government Loans.....	287,663,169
	<hr/>
	\$ 924,676,765
Less reductions in reserve appropriations and current liabilities.....	2,246,010
	<hr/>
	<u>\$ 922,430,755</u>

The difference between the increase in the assets and increase in the liabilities is accounted for by the accrued system deficit, including unpaid interest on Government loans, as well as deficits on Eastern Lines.

81. During the nine years in question the Canadian Pacific increased its total assets by \$253,447,438, and its liabilities by \$266,819,039. The details of the increase in assets are as follows:—

CAPITAL ASSET ACCOUNTS

Property investment, including railway rolling stock, lake and river steamers.	\$ 215,571,038
Hotels.....	46,887,999
Ocean and Coastal Steamships.....	56,610,641
Acquired Securities.....	48,982,529
Advances to controlled companies and insurance premiums (reduction)....	982,217
	<u>\$ 367,069,990</u>

CURRENT, DEFERRED AND RESERVE ACCOUNTS

Less decrease investments and available resources and current accounts....	\$ 113,622,552
	<u>\$ 253,447,438</u>

The increase of liabilities consisted of increases in the amount of:—

CAPITAL LIABILITY ACCOUNTS

Ordinary Capital Stock.....	\$ 75,000,000
Preference Capital Stock.....	56,575,000
Increase in Funded Debt.....	151,824,772
Increase in Premium on Capital Stock less discount on Bonds and Notes..	22,276,695
	<u>\$ 305,676,467</u>

CURRENT, ETC. ACCOUNTS

Less Reduction in Reserves, Appropriation and Current Accounts.....	\$ 38,857,428
	<u>\$ 266,819,039</u>

The difference between the increase in assets and the increase in liabilities is accounted for by the net reduction in surplus accounts of \$13,371,601.

82. From January 1, 1923, to December 31, 1931, the Canadian National increased its capital stock and debt as follows:—

Ordinary Capital Stock.....	\$ 650
Debt due public.....	471,954,063
Government Loans.....	132,468,521
	<u>\$ 604,423,234</u>

The above total does not include amounts advanced by the Dominion Government to the Canadian Government Railways, viz., Intercolonial and National Transcontinental Lines, nor the deficits on the Eastern Lines which under the Maritime Freight Rates Act are borne by the Dominion Government. Nor does it include accrued interest on Government loans to the Canadian National, which, for the period, aggregate \$287,663,169. Altogether these items total \$924,677,415.

In the same period the Canadian Pacific increased its capital securities as follows:—

Ordinary Stock.....	\$ 75,000,000
Preference Stock.....	56,575,000
Funded Debt.....	151,824,772
	<u>\$ 283,399,772</u>

Of the Preferred Stock and Funded Debt, \$39,101,055 of the increase had to do with the construction of ocean steamers and the acquisition of a half interest in the Canadian Australasian Line.

83. The following are the condensed balance sheets of the two systems as at December 31, 1931:—

IX. CANADIAN NATIONAL RAILWAY SYSTEM (INCLUDING EASTERN LINES)

ASSETS	
INVESTMENTS—	
Property Investment, Railway, etc.....	\$ 2,201,426,376
Sinking Funds and Special Deposits.....	24,662,823
Acquired Securities (Cost).....	2,301,088
Investments in affiliated companies.....	28,094,692
	<u>\$ 2,256,484,979</u>
WORKING ASSETS.....	\$ 95,475,587
<i>Unadjusted Debits—</i>	
Miscellaneous.....	\$ 5,633,063
Discount on Capital Stock and Funded Debt.....	16,499,032
	<u>\$ 22,132,095</u>
	<u>\$ 2,374,092,661</u>
LIABILITIES	
Capital Stocks.....	\$ 270,231,564
Government Grants.....	17,153,638
Long Term Debt (Public).....	1,276,457,207
	<u></u>
<i>Dominion of Canada Account—</i>	
Canadian Government Railways.....	405,209,240
Loans from Dominion.....	604,406,239
Accrued Interest on Loans.....	354,173,113
Eastern Lines Deficits other than 20 per cent rate reduction.....	29,680,572
	<u>\$ 1,393,469,164</u>
Current Liabilities, etc.....	78,618,523
Unadjusted Credits, Miscellaneous.....	5,615,482
Reserves and Depreciation Accruals.....	27,202,799
<i>Profit and Loss Account—</i>	
System.....	\$ 664,975,144
Eastern Lines.....	29,680,572
	<u>694,655,716 (Def.)</u>
	<u>\$ 2,374,092,661</u>

NOTE:—The Profit and Loss Deficit of \$694,655,716 includes accrued unpaid interest on Loans from the Government amounting to \$356,991,972.

X. CANADIAN PACIFIC RAILWAY COMPANY

ASSETS	
INVESTMENTS—	
Property Investment, Railway, etc.....	\$ 868,448,443
Steamships.....	116,397,891
Acquired Securities (cost).....	177,154,695
Advances to Subsidiary Companies.....	9,723,546
	<u></u>
OTHER INVESTMENTS AND AVAILABLE RESOURCES—	
Deferred Payments, Lands and Townsites.....	\$ 52,877,075
Miscellaneous Investments (cost).....	33,191,050
Lands and Properties.....	59,216,054
	<u>\$ 145,284,179</u>
WORKING ASSETS.....	\$ 63,879,834
	<u>\$ 1,380,888,588</u>

REPORT OF ROYAL COMMISSION

CANADIAN PACIFIC RAILWAY COMPANY—*Concluded*

LIABILITIES

Capital Stock.....	\$ 472,256,921
Long Term Debt.....	450,374,638
Current Liabilities, etc.....	39,090,869
Reserves and Appropriations.....	40,989,709
Premium on Capital Stock, etc.....	67,270,695
Surplus.....	310,899,756
	<hr/>
	\$ 1,380,888,588

XI. CAPITAL STRUCTURE, CANADIAN NATIONAL RAILWAYS

84. Representations have been made with respect to the capital structure of the Canadian National Railways. This problem presents several aspects. One is the very large number of companies whose corporate existence must be maintained. Another is the large number of different bond issues and mortgages with different rates of interest, expiring at different periods and with all sorts of different clauses in them. It has been stated that included in the National Railway System there are 251 different bond issues and mortgages; that there are 80 different issues of certificates in the bonds of the public; that there are 139 companies whose corporate existence must be maintained; and that 42 separate income accounts and 90 separate balance sheets have to be prepared each year.

85. Another aspect of the problem is the total capital liability of the System. At December 31, 1931, the long term debt of the Canadian National Railways due the public (funded debt unmatured) amounted to \$1,276,457,207. The money invested in the original Government Railways, loans by the Dominion Government to the privately-owned railways now absorbed in the System, loans to the Canadian National Railways to meet annual deficits, interest accrued on these loans and unpaid, and deficits on Eastern Lines, together total \$1,393,469,164. The total of these two sums is \$2,669,926,371.

86. It has been suggested that in view of the excessive capital liabilities in relation to the earning power of the System they should be reduced to an amount which would more nearly approximate the earning power of the railway. The net operating income (i.e., the amount available for interest and dividends) of the Canadian National System for the period 1923 to 1931 inclusive averaged \$24,414,447 per annum. This figure would require adjustment if adequate provision were made for depreciation. It is obvious that on this basis of earnings the capital liabilities would require a very drastic writing down. And while this commission is of opinion that it must be frankly recognized that a very substantial part of the money invested in the railways comprised within the Canadian National System must be regarded as lost and that its capital liabilities should be heavily written down, they do not consider that the time is opportune to deal with this important matter.

87. This question as well as that previously referred to, dealing with the present involved financial structure of the Canadian National System, should, in the opinion of the commission, have the early attention of the Board of Trustees, which it is recommended should be entrusted with the control and management of the System.

XII. GROWTH OF THE BURDEN OF TAXATION

88. The demands of the Canadian National Railway upon the federal treasury have served to create a financial problem which, together with other demands, have led to large increases in borrowings by the Dominion Government and increased taxation.

89. When Canada entered the Great War there existed a federal debt of \$336,000,000, entailing an annual charge of approximately \$20,000,000. War expenditures added about \$1,700,000,000 to the debt of the Dominion. In the post-war period, while there were years when the debt was reduced, the result on the whole has been an increase in the net debt. In the year 1930-31 there was added the sum of \$83,847,977, and, in the year 1931-32, \$119,500,000.

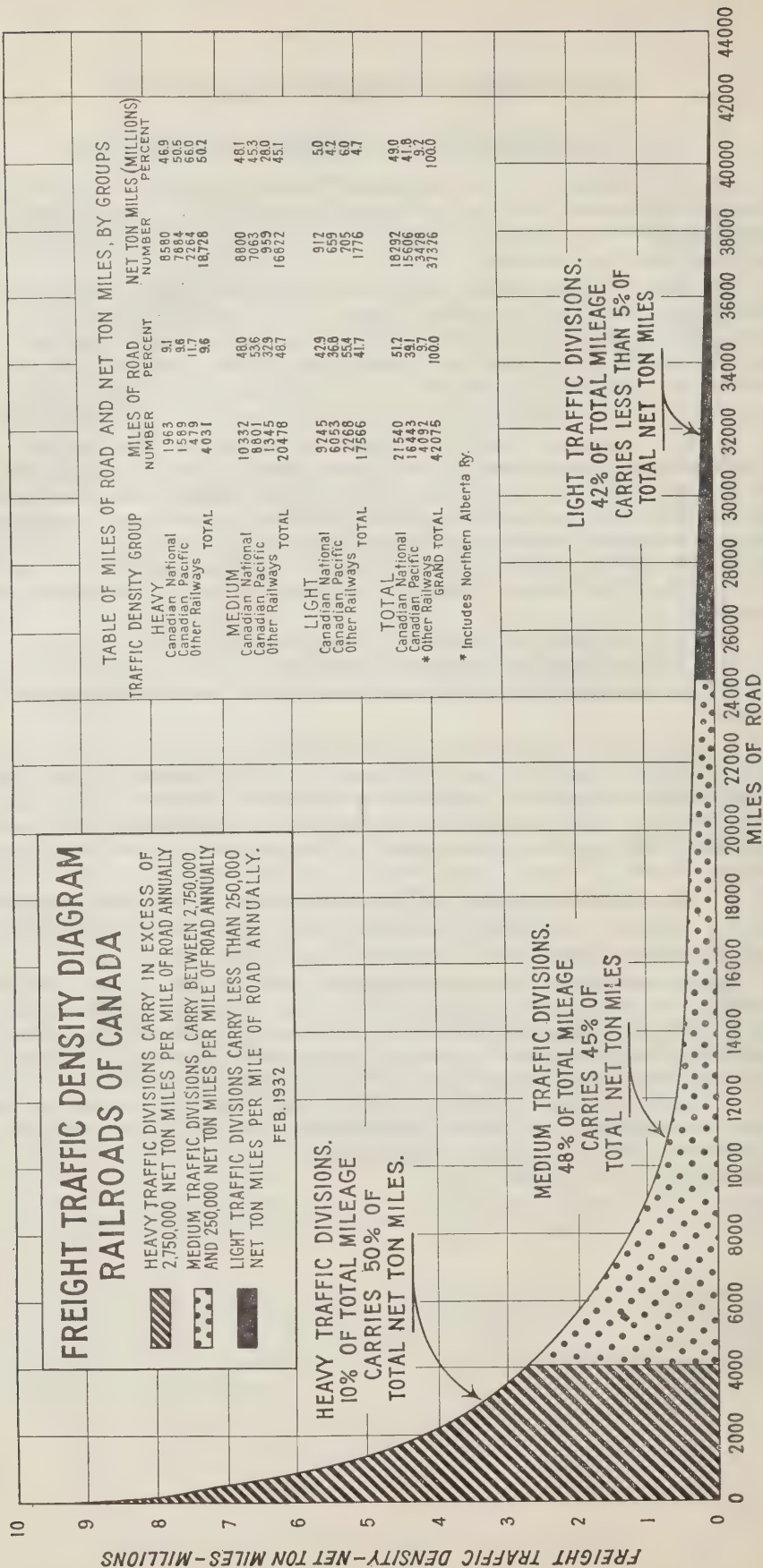
90. The additional carrying charges for the entire debt appear in the official estimates for the present fiscal year 1932-33, in which the interest upon the federal debt, and interest upon Post Office Savings, with \$3,500,000 for sinking fund, calls for a payment of \$137,400,000. To this must be added a war charge for pensions and special disability claims of \$5,000,000 per month, or \$60,000,000 for the year. These two items of fixed charges for the year 1932-33, totalling \$197,400,000, should be contrasted with the \$20,000,000 for the year 1913.

91. It is necessary, therefore, in considering the railway problem, which since 1917 has established claims for such immense sums upon the federal treasury, to ask how the country is to meet these capital and annual charges if continued.

92. It is to be remembered that, coincident with this great increase in federal treasury liability, there has been a vast enlargement in the liabilities of provincial and municipal governments throughout Canada. They have borrowed and spent, and spent and borrowed, and in consequence have increased their debt charges to such an extent that the burden of taxation is deeply resented.

93. Meantime international credits have become disastrously impaired and there is difficulty in securing immediate relief in an acute situation through fresh borrowings from Great Britain and the United States.

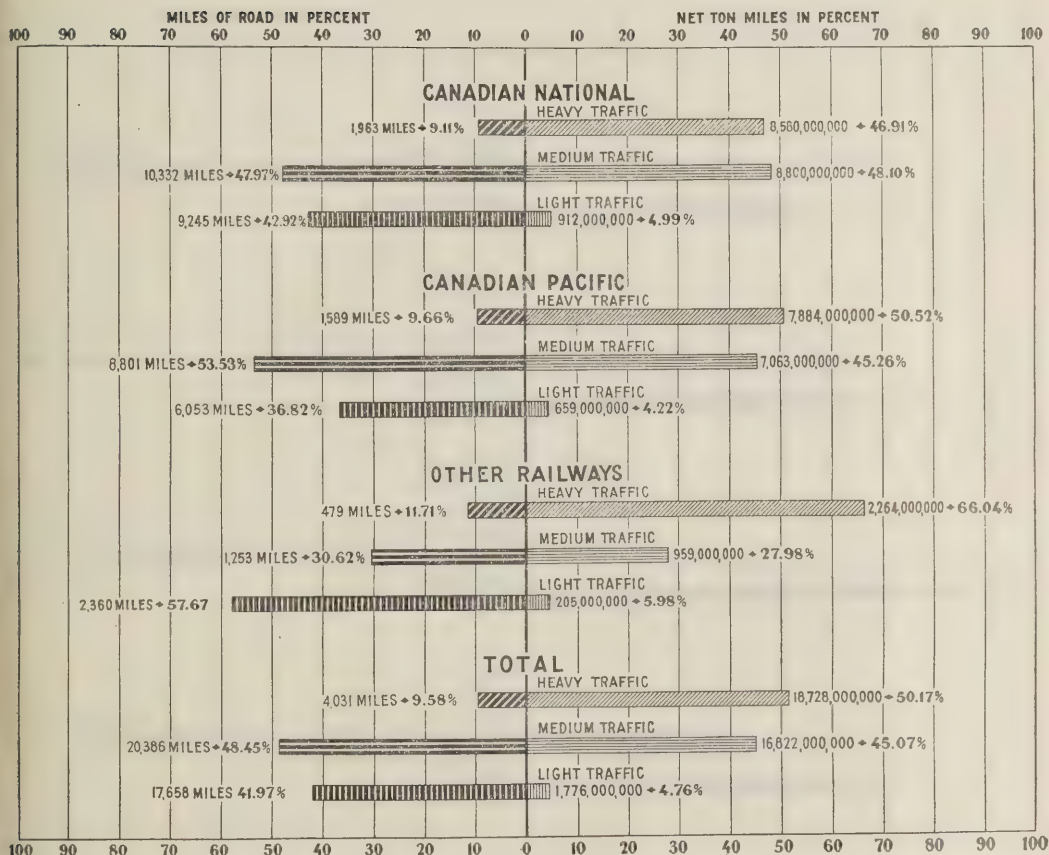
94. In considering, therefore, suggested solutions for the present railway situation, we must take cognizance of existing financial conditions, and bear in mind the prevailing low prices for all agricultural, and other primary products; also that the general depression in business is inevitably associated with unemployed men and women upon a hitherto unparalleled scale—with shrinkage in business income returns through greatly reduced profits, or actual losses in industrial and general merchandizing activities—involving reduction or passing of dividends upon investment securities, as well as, in some cases, actual loss in their capital value.



FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

TOTAL ALL ZONES



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

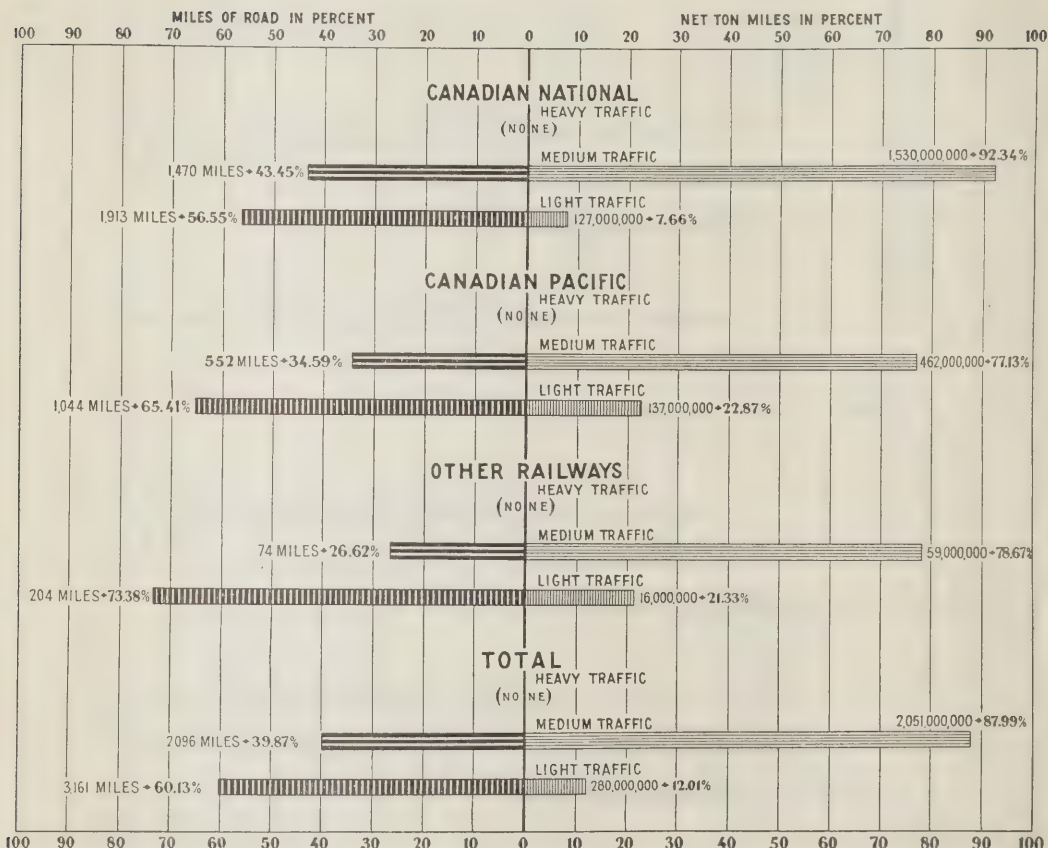
Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

ZONE 1—ATLANTIC COAST TO LEVIS



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

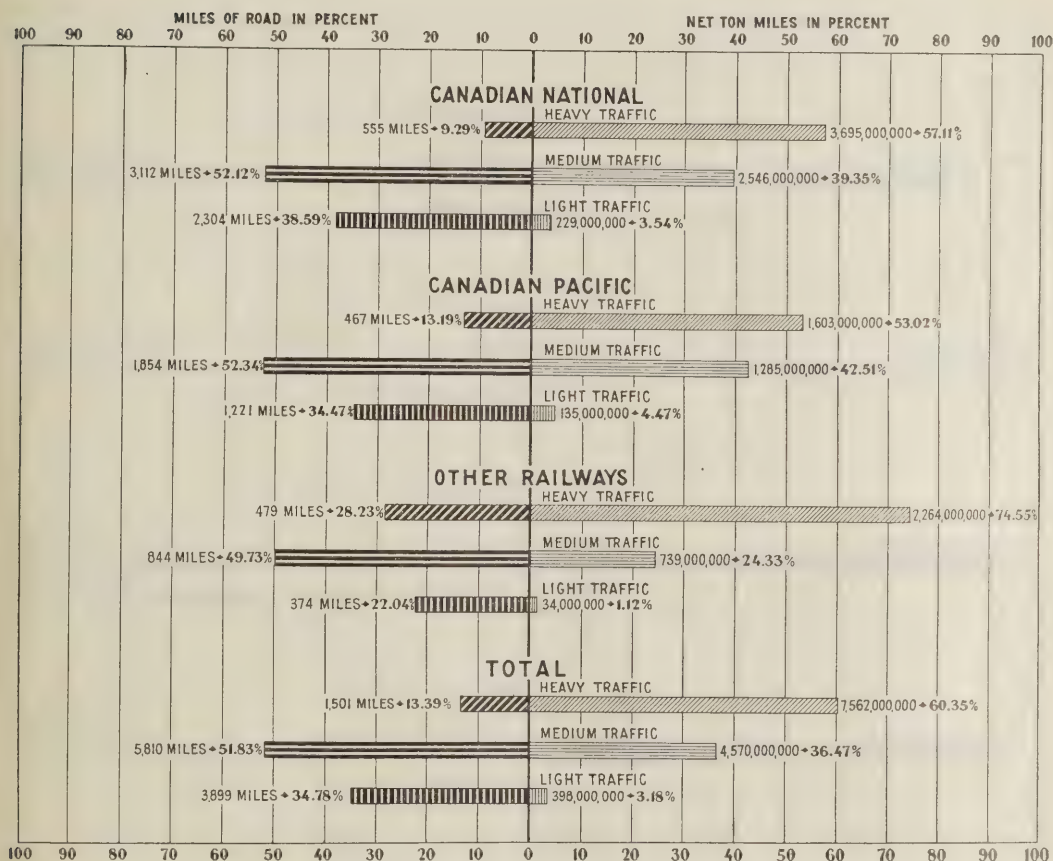
Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

ZONE 2—QUEBEC TO DETROIT AND SUDBURY



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

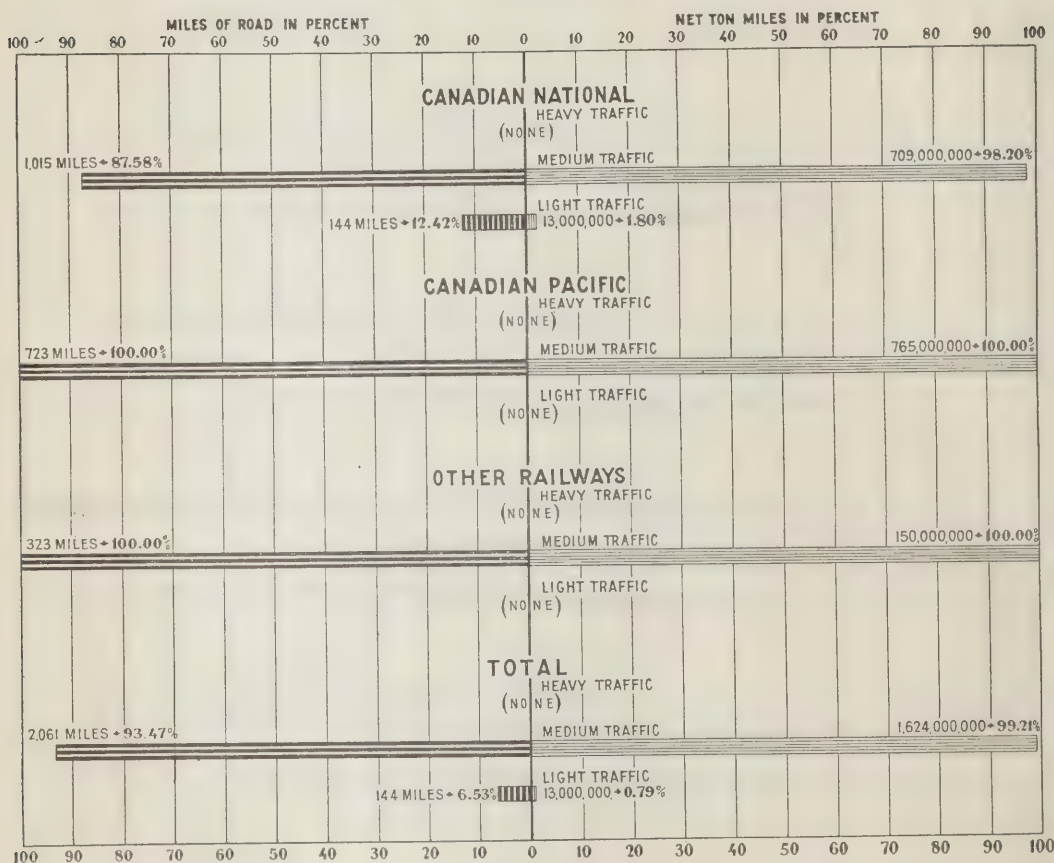
Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

ZONE 3—DETROIT AND SUDBURY TO PORT ARTHUR



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

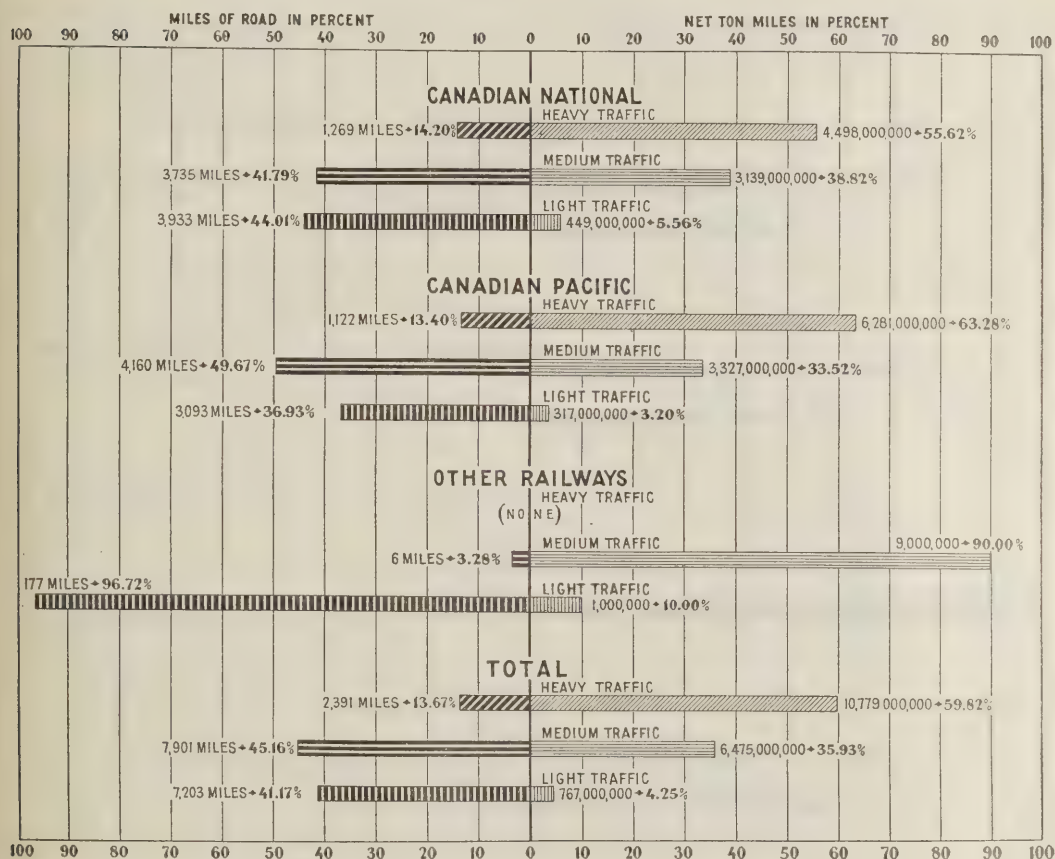
Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

ZONE 4—PORT ARTHUR TO CALGARY AND EDMONTON



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

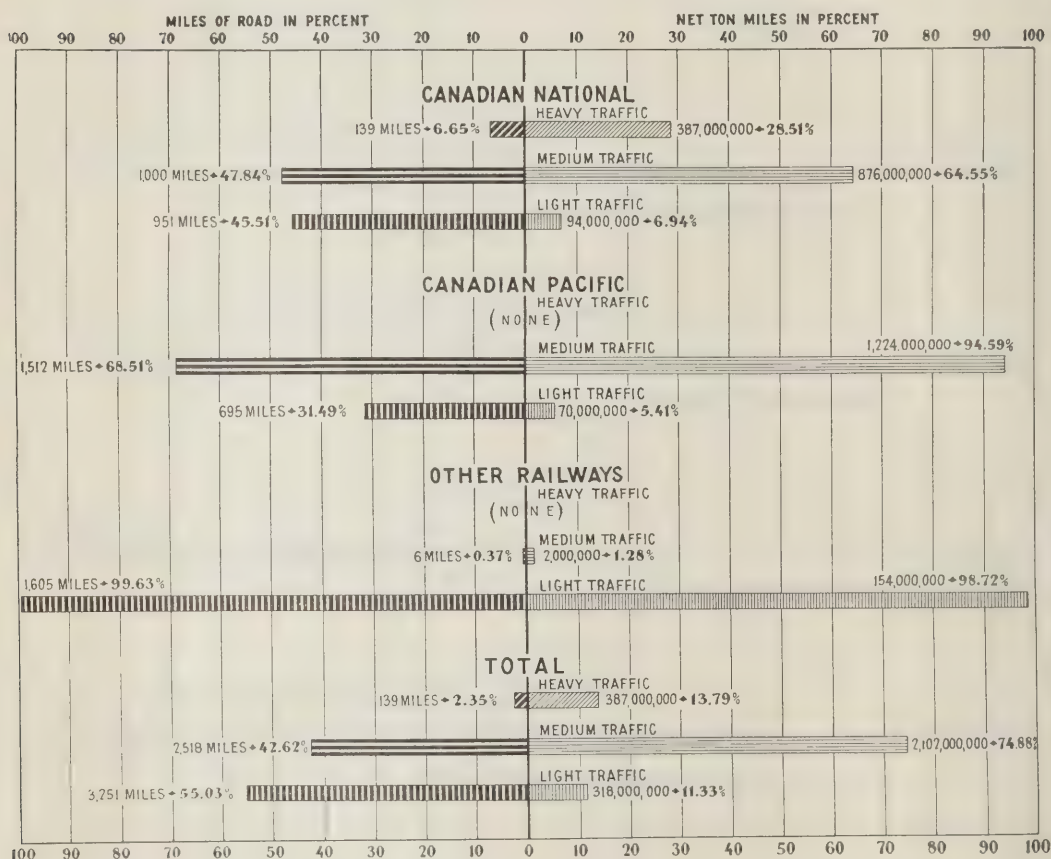
Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

FREIGHT TRAFFIC—RAILWAYS OF CANADA

Miles of Road and Net Ton Miles

ZONE 5—CALGARY AND EDMONTON TO PACIFIC COAST



Heavy Traffic Divisions carry in excess of 2,750,000 net ton miles per mile of road annually.

Medium Traffic Divisions carry between 2,750,000 and 250,000 net ton miles per mile of road annually.

Light Traffic Divisions carry less than 250,000 net ton miles per mile of road annually.

CHAPTER III

FIELD OF RAILWAY OPERATION

95. Of all the countries of the world Canada has the smallest population per mile of railway. In the United States the population per mile of railway is more than double that of the Dominion.

I. MILEAGE

96. At December 31, 1930, the total railway mileage of Canada was as follows:—

First main track.....	42,075
Additional main tracks.....	2,690
Industrial tracks, yard tracks and sidings.....	11,877
Total.....	56,642

The increase over the preceding year was 774 miles. In addition, there was under construction 713 miles, chiefly in the Prairie Provinces.

97. The steam railway mileage by provinces, the population and miles of railway per capita, as of 1930 (the latest year for which complete data is available), are as follows:—

Steam Railway Mileage	First Main Track	Population	Population per mile of Rly.
Prince Edward Island.....	286	85,800	300.0
Nova Scotia.....	1,418	553,900	390.6
New Brunswick.....	1,934	423,400	218.9
Quebec.....	4,891	2,734,600	559.1
Ontario.....	10,938	3,313,000	302.9
Manitoba.....	4,420	671,500	151.9
Saskatchewan.....	8,166	882,000	108.0
Alberta.....	5,607	660,000	117.7
British Columbia.....	4,021	597,000	148.4
Yukon.....	58	3,700	63.8
Northwest Territory.....		9,600	
In United States.....	336		
Totals.....	42,075	9,934,500	236.1

98. It is of interest to note the following comparative table of railway mileages of the two principal systems, by provinces, as of 1930:—

Provinces	C.N.R.	C.P.R.	Total
Prince Edward Island.....	286.05		286.05
Nova Scotia.....	1,007.67	288.36	1,296.03
New Brunswick.....	1,259.63	623.50	1,883.13
Quebec.....	2,918.81	1,657.53	4,576.34
Ontario.....	6,000.54	3,286.40	9,286.94
Manitoba.....	2,471.34	1,765.20	4,236.54
Saskatchewan.....	4,185.65	3,979.90	8,165.55
Alberta.....	2,179.93	2,554.40	4,734.33
British Columbia.....	1,403.80	1,937.10	3,340.90
United States.....	71.88	262.50	334.38
	21,785.30	16,356.89	38,142.19

99. Each of the two systems controls certain important lines of railway in the United States, and a complete picture of system operations requires that this additional mileage be taken into account.

CANADIAN NATIONAL RAILWAY SYSTEM

FIRST MAIN TRACK AT DECEMBER 31, 1931

<i>Lines in Canada—</i> (Ex Eastern Lines).....	18,639 13	
Eastern Lines.....	3,342 37	
Total lines in Canada.....		21,981 50
<i>Lines in United States—</i>		
Canadian National (Rouses Point, etc.).....	72-39	
Atlantic and St. Lawrence (Portland, Me.).....	172-21	
Duluth, Winnipeg and Pacific.....	176-37	
Central Vermont Railway Inc.....	456-69	
Grand Trunk Western Railway.....	1,021-45	
Total lines in United States.....		1,899-11
Grand Total.....		23,880-61

CANADIAN PACIFIC RAILWAY SYSTEM

FIRST MAIN TRACK AT DECEMBER 31, 1931

Lines in Canada.....	16,567-30	
Lines in United States.....	319-20	
Total Canadian Pacific Railway.....		16,886-50
<i>Controlled lines in United States—</i>		
Minneapolis, St. Paul and Sault Ste. Marie Railway.....	4,249-00	
Duluth, South Shore and Atlantic, Mineral Range and Spokane International.....	811-40	
		5,160-40
Grand Total.....		22,046-90

II. TRAFFIC DENSITIES

100. Excess Mileage coupled with low traffic density has contributed greatly to the problem under consideration by this Commission. We find that the volume of traffic of Canadian Railways is distributed as follows:—12 per cent over the lines east of Levis, 60 per cent in Quebec and Ontario, $4\frac{1}{2}$ per cent north of the Great Lakes (Sudbury Junction to Fort William and Port Arthur and Superior Junction) about 20 per cent in the Prairie Provinces, and 3-4/10 per cent in British Columbia.

The ton mileage of these same five zones is:—

	Percent
Lines east of Levis.....	6-73
Ontario and Quebec.....	29-71
North of Great Lakes.....	8-30
(Sudbury Junction to Fort William and Port Arthur and Superior Junction)	
Prairie Provinces.....	46-55
British Columbia.....	8-71
	100-00

The large percentage of the Prairie Provinces is due to their distance from the coastal outlets. The moving of the grain crop creates a large empty car movement and is highly seasonal, the bulk of the movement taking place during an average period of about sixty days.

101. The effect of these difficulties is illustrated in the following table of car loadings:—

CAR LOADINGS (i.e. cars loaded and unloaded)		Percent
Lines east of Levis.....		5.31
Ontario and Quebec.....		24.24
North of Great Lakes.....		4.62
(Sudbury Junction to Fort William and Port Arthur and Superior Junction)		
Prairie Provinces.....		56.75
British Columbia.....		9.08
		100.00

102. Commissioner Loree, who contributed the studies involved in the preceding tables, has also supplied freight traffic density diagrams showing lines of heavy, medium, and light traffic. The first category includes lines carrying annually in excess of 2,750,000 net ton miles per mile of road; the second, the lines carrying less than 2,750,000 and more than 250,000 net ton miles per annum; the third, the lines carrying annually less than 250,000 net ton miles per mile of road annually. In the United States the right to exist, when tested by economic experience, of all railway mileage in the third group is under challenge. In Canada 42 per cent of the total mileage carries less than five per cent of the total net ton miles, and falls within the third group. Medium traffic lines, comprising 48 per cent of the total mileage, carry 45 per cent of the total net ton miles, while the heavy traffic is confined to the remaining 10 per cent of the total mileage, which carries 50 per cent of the total net ton miles. The light traffic divisions constitute 42 per cent, or 17,658 of the 42,075 miles of railway in the Dominion. Were it possible to bandon this economically unsound mileage, the mileage remaining and now carrying 95 per cent of the net ton miles, would be about 58 per cent of that now in existence.

III. DUPLICATION OF RAILWAY MILEAGE

103. The duplication of railway mileage in Canada is of two general types:—

- (a) The lines of railway constructed by various owners, which lines, when they came under common ownership and operation, were found to a considerable extent to be duplicative of one another;
- (b) The directly competitive sections of the two principal systems which, because of unwise rivalry and lack of co-operative spirit, were separately constructed, whereas joint construction and operation, or agreement as to running rights over lines already constructed, would have served all necessary requirements and prevented much waste of public and private funds. Related to this group are lines which are functionally duplicate although not located in the same territory.

104. These problems relate to both branch and trunk lines. Of the lines in group (a) it has been possible, since the consolidation of the Canadian National System in 1923, to eliminate a certain amount of duplicate mileage. A war requirement for rails and track material first pointed the way to this possibility when, 1917, rails were lifted from one or other of the Canadian Northern and Grand Trunk Pacific lines which paralleled one another so closely between Edmonton and Red Pass Junction in the Rocky mountains. As a result of war necessities, these two lines were unified for a distance of 213 miles. Subsequently 144 miles of Canadian Northern track were lifted between Napanee and Toronto, where the Grand Trunk Railway had been the pioneer road, only to find its territory invaded by the Canadian Northern and then by the Canadian Pacific Lake Shore line. Of this type of duplication considerable still remains.

105. The principal duplications of type (b) involve main line mileage of considerable length, with long established services.

IV. ABANDONMENT PROPOSALS

106. In the discussion of possible remedies the Canadian Pacific placed before us a plan for the abandonment of certain sections of railway involving several thousand miles of track. In each case an alternative routing was indicated. Among the lines which would be dispensed with under such a plan were many short sections of both railways in all parts of the Dominion which, conceivably, might be abandoned and running rights secured over one or other of the two systems.

107. In view of the importance of the matter as a factor contributing to the solution of the general problem of transportation, this commission invited the most earnest attention of the railway authorities to this aspect of our inquiry. The Canadian National analyzed the local and general features of certain suggested abandonments emphasizing the following considerations:—

Relative operating merits of the alternative lines as through routes.

Traffic carrying capacity of the remaining through routes.

The natural resources tributary to the section proposed to be abandoned.

The extent of settlement tributary to the section.

The wealth production tributary to the section.

Railway economy resulting from the abandonment.

Cost of alternative highway transportation facilities if feasible.

Compensatory cost to industries and settlers for severance of communication.

108. As a result of this analysis the Canadian National is of opinion that abandonment of railway lines in Canada should be limited to the elimination of duplicating lines which closely parallel each other, and that wholesale abandonment of lines and duplicative through routes would be false economy. While in their judgment wholesale abandonments would not go far towards improving the financial picture of the railways of Canada as a whole, they state that some saving could be effected by concentrating all the through business on the most suitably located and economically operated route.

109. The Canadian Pacific state that if we are to adjust our transportation facilities to the reasonable requirements of a nation of less than eleven million people, some lines will have to be discarded, and it only remains to select those that can be sacrificed with a minimum disturbance to trade and with the least hardship to individuals. When any section of line has been in operation for a period of years, even though it traverse what is virtually a wilderness, it could not be eliminated without inconvenience to some. It has been their experience that individuals and industries have been prone to establish themselves at points remote from markets, and then expect railway services and railway rates to correct their geographical disability. Every new railway has, seemingly, been a challenge to the adventurous, and has usually led to the injudicious multiplication of industrial plants, and very often to the cultivation of inferior land.

V. THE ELEMENT OF COMPETITION

110. There has been competition (a) between the railways themselves, (b) between the railways and the waterways during the season of navigation, and (c) between the railways and the highways. All three forms of competition have been publicly subsidized, the first by grants of lands and moneys, the second by appropriations for improvements and free use of the waterways, and the third by the provision of expensively paved and inter-connecting systems of highways.

111. The Canadian Pacific state that during the decade, 1920 to 1930, there had been constantly increasing competition between the two railways, and that the extent and intensity of that competition was not warranted by the present day traffic and earning conditions. Recognizing that, the two companies had been co-operating to reduce costs where joint action was desirable and possible, but it was the opinion of the Canadian Pacific that there was a limit to which competing systems could go in acts of co-operation so long as they remained distinct and independent units under different ownership.

112. The president of the National System was quite frank in his declaration that, since the consolidation of the Canadian National in its present form, it and the Canadian Pacific had proceeded "in the way habitual to all railways" to compete with one another. It had remained for the depression, which set in during the autumn of 1929, to point the way to a saner course. He indicated that competitive construction between the Canadian National and the Canadian Pacific had no doubt been due to the lack of a central authority to control such tendencies, and suggested that the time had come when control of such matters should be set up if the railways were to continue as separate entities.

113. It was this traditional competitive impulse that involved the railways in heavy expense, both capital and operating, in passenger equipment and services—a department of railroading as to the profitable character of which opinions have always differed—and at a time when the volume of passenger traffic was sharply declining. Not only was there internal competition as between the two railways during this period, but there was developing an external competition of revolutionary import arising from highway traffic. This should have been regarded as of sufficient importance to have warranted co-operative action and to have prevented the continuance and extension of luxurious and duplicative passenger services, with seeming necessity to provide such ancillary enterprises as hotels and coastal steamships. Not only was there duplication in operation of passenger trains, but practically identical schedules were adopted when a "staggered" service would have been better adapted to serve the public convenience. These wasteful practices extended to house delivery of tickets, the multiplication of city ticket offices, to radio activities, costly advertising, and the establishment of a standard of passenger travel quite beyond the requirements of the country.

114. Had this competition existed between private companies, each dependent upon its own resources to raise the capital and to pay the bill, it is likely that years of adversity would have brought wisdom. But one of these competitors was backed by the long purse of the State, and the consequences of these errors and extravagances must be borne by the taxpayers, and in this connection we must not lose sight of the fact that the Canadian Pacific, the principal rival of the Canadian National Railway, was at the same time the largest taxpayer. The evils of this unfortunate competition did not rest there. Challenged by the State-subsidized National System, the Canadian Pacific felt compelled, in the defence of its own interests, to meet the challenge. Now in the interests of both railways and of the taxpayers of Canada there must be a cessation of aggressive and uncontrolled competition, and while the Canadian Pacific must be afforded proper protection from the State-subsidized activities of the Canadian National, it is not possible to absolve the privately-owned company from a share in the general competitive folly.

VI. DECLINE IN PASSENGER TRAFFIC

115. The decline in passenger traffic as between 1923 and 1931, and the very great drop in passengers carried as between even 1930 and 1931 (about 42 per cent), is shown in the following table:—

	1923	1930	1931
Canadian National Railways.....	23,683,781	17,003,131	12,890,419
Canadian Pacific Railway.....	14,529,907	12,446,339	9,442,230
Totals.....	38,213,688	29,449,470	22,332,649

116. Taking 1923 as an index the following statement of passenger train mileage shows that the Canadian Pacific more effectively reduced train services to meet the changing conditions:—

Year	Canadian National Index		Canadian Pacific Index	
1923.....	24,093,146	100.00	20,806,470	100.00
1931.....	23,718,018	98.44	19,692,785	94.65
Decrease.....	375,128	1.56	1,113,685	5.35

117. The trend over the period, 1923 to 1931, of passenger train earnings is shown in the following statement:—

CANADIAN NATIONAL RAILWAYS

Year	Total	Index	Per Train Mile	Index
	\$		\$ cts.	
1923.....	61,011,467	100.00	2 53	100.00
1931.....	40,330,764	66.10	1 70	67.19
Decrease.....	20,680,703	33.90	0 83	32.81

CANADIAN PACIFIC RAILWAY

Year	Total	Index	Per Train mile	Index
	\$		\$ cts.	
1923.....	59,717,657	100.00	2 87	100.00
1931.....	37,154,422	62.22	1 89	65.85
Decrease.....	22,563,235	37.78	0.98	34.15

COMBINED CANADIAN NATIONAL AND CANADIAN PACIFIC RAILWAYS

Year	\$	
1923.....	120,729,124	100.00
1931.....	77,485,186	64.18
Decrease.....	43,243,938	35.82

118. The foregoing tables show that the Canadian Pacific passenger train mileage was 19,692,785 in 1931, or 5·35 per cent less than in 1923, and the Canadian National was 23,718,018 miles, a decrease of only 1·56 per cent. But for intensive competition greater reductions might have been made in train service to meet the reduction in passenger train earnings which, for the combined railways, was 35·82 per cent for the period. This, in particular, would have been possible in recent years. A study of the statistics for the entire period shows that the Canadian Pacific commenced to reduce train mileage in 1929, while the Canadian National that year increased its train mileage over the peak year of 1928. With gross expense on a comparable basis, it is found that the Canadian National, in 1931, with 120 per cent of the train mileage of the Canadian Pacific, had only 109 per cent of the train earnings. This supports the view that the Canadian National has maintained a passenger train service out of proportion to the traffic offering

VII PASSES AND FREE TRANSPORTATION

119. Related to the question of passenger service and revenues is the matter of passes and free transportation. Reduced rates and free transportation in Canada may be granted only as provided by the Railway Act, which restricts such privileges to railway officials and employees and their families; to members of the provincial legislatures within the confines of the various provinces; to dependent members of the families of members of the Senate and House of Commons of Canada, and such officers and staff of the Board of Railway Commissioners as the board may determine, "or for such other persons as the board may approve or permit." In the exercise of the discretionary power thus permitted, free transportation is issued to certain Dominion Government employees. The Act also authorizes the railways to grant free carriage to the Governor General and staff and families, and to Senators and Members of Parliament on production of certificates of membership in either House.

120. During the year 1930 the following free passes were issued by both railways:—

	Canadian National Railways	Canadian Pacific Railway	Both Lines
Long service annuals to employees.....	77,212	62,683	139,895
Other annual passes.....	16,858	21,351	38,209
Trip passes to dependents of Senators and Members, Government employees and press.....	6,011	5,067	11,078
Other trip passes, mainly railway employees and dependents.....	288,639	266,659	555,298

121. During 1930 the total number of employees of the Canadian National Railways was 94,334, or 106,219 if outside operations such as express, telegraph, hotel and subsidiary companies are added; while the Canadian Pacific had 61,607 engaged in direct railway employment, and another 9,111 engaged in affiliated operations, making a total of 70,718 for that company, or a combined total of 176,937. We are informed that the trip passes issued to the employees of railways and their dependents were for the most part issued on railway service.

122. The railways were asked to supply additional details as to trip passes. One of the two systems was unable to provide this information, but that supplied by the other may be regarded as representing the general Canadian practice.

This indicates that, of 294,640 trip passes issued by one railway in 1930 the distribution was as follows:—

Dependent members of families of Canadian Senators.....	512
Dependent members of families of Members of Parliament.....	2,323
Government employees and their dependent members of family.....	1,063
United States Immigration and Customs officers.....	53
Press representatives.....	2,060
Charity cases.....	10
Officers and employees of the railway and their dependent members of family.....	246,845
Officers and employees of other railroad and steamship companies and their dependent members of family.....	41,784

123. We have looked into the practice in Great Britain and the United States with regard to railway passes, and find that, making allowance for travel on company business, the issue of trip passes to railway employees and dependents in Canada is not out of line with United States practice, and is, if anything, less generous than the British practice. On the other hand, the Canadian and United States practice with respect to long service annuals to employees is on a very generous scale and would seem to have no counterpart in British railway practice.

124. In the United Kingdom, a Member of Parliament wishing to travel to or from his constituency applies to the accounting officer of the British House of Commons for a warrant which, in effect, instructs the railway company to issue a ticket in accordance with the requisition contained in the warrant. The member presents the warrant at the railway station, and the necessary ticket is issued to him free of charge, the railway company billing the accounting officer of the House of Commons at the end of each month for such transportation as may have been issued on members' account. The fares so charged are the same as those charged the general public. A similar procedure is adopted in connection with the staffs of the various government departments. In the United States free transportation is not supplied members of the Senate or of Congress; nor is there issue of free transportation on press account.

125. We are of the opinion that where the statute imposes an obligation upon the railways to provide free transportation for members of the federal parliament or provincial legislatures, and their dependents, or for civil servants and dependents, the State should bear the cost of the service involved. It is also suggested that the discretionary power in the matter of free transportation presently vested by law in the Board of Railway Commissioners be reviewed. The Interstate Commerce Commission of the United States is permitted no such discretionary power.

VIII. OPERATING EFFICIENCY

126. During the period under review the Canadian National did not lack rolling stock or motive power necessary to efficient operation. The Canadian National was exceptionally well equipped with locomotives, having, during the nine-year period, acquired 509 locomotives as compared with 173 for the Canadian Pacific, while the average tractive power per locomotive increased from 32,800 pounds in 1922, to 39,200 pounds in 1931, or 16·4 per cent in the case of the National system, compared with from 31,349 pounds to 35,338 pounds or 12·9 per cent, in the case of the Canadian Pacific. Whereas in 1922 the Canadian National had 12·7 per cent more passenger train cars than the Canadian Pacific, in 1931 it had 18·1 per cent more. In 1922 the Canadian National Railway had 34·4 per cent more freight cars than the Canadian Pacific and, in 1931, 40·9 per cent more. The average mileage operated (first main track) of the Canadian National system was 39·6 per cent greater than that of the Canadian Pacific. The ratio of freight car ownership of the Canadian National

System is thus found to approximate closely the difference in the actual mileage operated by the two systems. Generally speaking, the Canadian National has been abundantly equipped.

127. The operating revenues and expenses for 1922 and 1931, contrasted with the peak year of railway operation, 1928, were:—

CANADIAN NATIONAL RAILWAY

Year	Railway Operating Revenues	Railway Operating Expenses
	\$	\$
1922.....	235,736,397	232,115,971
1928.....	304,591,268	249,731,695
1931.....	193,975,132	193,574,834

CANADIAN PACIFIC SYSTEM

Year	Railway operating revenues	Railway operating expenses
	\$	\$
1922.....	205,640,649	164,725,299
1928.....	251,567,043	189,602,528
1931.....	154,963,411	124,448,912

128. Using 1922 as an index, the percentage relation of the revenues and expenses for the same years was:—

Year	Canadian National Railways		Canadian Pacific System	
	Revenue	Expenses	Revenue	Expenses
1922.....	100.0	100.0	100.0	100.0
1928.....	129.2	107.6	122.3	115.1
1931.....	82.3	83.4	75.4	75.5

The decreases in revenue of both systems were accompanied by a closely related decrease in operating expenditures and the relation of earnings to expenses remains substantially unchanged.

129. The percentages of revenue of both railways from various sources over the nine-year period are as follows:—

	Canadian National Railways	Canadian Pacific System
	per cent	per cent
From Freight Service.....	73.32	67.79
From Passenger Train Service—		
Passengers.....	13.75	16.09
Mail.....	1.42	1.81
Express.....	5.32	5.19
Other.....	6.19	9.12
	100.00	100.00

130. A classification of the freight tonnage by commodities, based on the average of both railways for the years 1923 to 1931 inclusive, shows that in the movement of agricultural commodities the Canadian Pacific has enjoyed the premier position, while the Canadian National predominates in the movement of the products of the mine, the forest and of manufactured goods:—

	Canadian National Railways	Canadian Pacific Railway
	Per cent of total	
Wheat and other grain.....	13.56	22.78
Flour and other mill products.....	3.35	5.49
Other agricultural products.....	3.09	3.12
	20.00	31.39
Total animal products.....	2.54	2.47
	22.57	17.50
Coal and ore.....	9.90	6.74
Sand, gravel and stone.....	1.75	3.21
Other mine products.....		
	34.22	27.45
Total forest products.....	16.50	13.57
	26.74	25.12
Total manufactured and miscellaneous products.....		
Grand total.....	100.00	100.00

131. The revenue ton miles for the Canadian National lines, in 1931, was 14,192,123,395, or 31.5 per cent greater than that of the Canadian Pacific, which was 10,793,152,571. The net ton miles per mile of line (revenue and non-revenue freight), a customary unit expressive of density of traffic, was, for the Canadian National Railways in 1931, 672,593, as compared with the Canadian Pacific's 729,023. The showing of the Canadian National in this regard was greatly improved by the contribution of the Grand Trunk Western portion of the system, where the net ton miles per mile of line was 1,402,377.

132. The Canadian National (Canadian lines) has not as many train miles per mile of road as the Canadian Pacific and, therefore, has a greater proportion of expenses per ton mile, which fact results in the absorption, by the Canadian National, of a higher proportion of fixed expense for a given volume of traffic. The Canadian National has not been able to attain the loading per car which the Canadian Pacific has secured, obviously a disadvantage from the point of view of operating costs. The slump in tonnage must be taken into account when considering car loading achievement.

133. A commendable feature of Canadian National performance over the period has been the economies realized in coal consumption. This is expressed in the following table:—

POUNDS OF COAL CONSUMED PER 1,000 GROSS TON MILES

	1923	1931
Canadian National.....	146.0	117.0
Canadian Pacific.....	130.0	113.8

The lower gradients of the Canadian National System are reflected in this comparison of coal consumption.

134. The locomotive fuel bill of the two systems dropped from \$58,242,655 in 1923 to \$29,433,816 in 1931, both companies reducing these expenditures by one-half. The reduction in the price of coal has been but slight, but the drop in tonnage has been considerable. The proportion that fuel bears to the general cost of railway operation is shown in the following statement:—

Operating Ratios	Canadian National		Canadian Pacific	
	1923	1931	1923	1931
	per cent	per cent	per cent	per cent
Fuel for locomotives.....	13·12	8·55	12·09	8·69
Other operating expenses.....	78·66	91·16	68·91	71·62
Total.....	91·78	99·71	81·00	80·31

It will be noted that while the Canadian National fuel ratio dropped from 13·12 per cent to 8·55 per cent, the ratio of other operating expenses increased from 78·66 per cent to 91·16 per cent, not only effecting the saving in fuel but increasing the ratio of total operating expenses to revenues by 7·93 per cent.

135. In seeking a "yard stick" by which to measure operating results of the Canadian National Railways it has been customary to take Canadian Pacific Railway performance. This, however, must not be regarded as an absolute criterion. Operating costs are bound to be affected by differences in size of the properties, the purpose as well as the type and standard of construction, the general physical condition, the differences in character and volume of traffic, average haul of freight, and train and car loadings. However, if the level of expenses of the Canadian Pacific is to be accepted as measurably determining what the relative operating charges of the National lines should be, the information placed before us by the experts who have been engaged in correlating the statistical data of the two systems indicates that the operating costs of the Canadian National System are in certain particulars much higher than they should be. This would appear to be the case in the item of supervisory expenses, also in station and yard services. The Canadian National costs were greater than the Canadian Pacific by 63·5 per cent for superintendence, 38·2 per cent for station service, and 69·7 per cent for yard service, while the train mileage of the National lines was only 22·8 per cent, and the car mileage 34·9 per cent greater than that of the Canadian Pacific.

136. The immense expenditures of the Canadian National for the improvement of its property, the larger additions to its rolling stock, the advantages of increased tractive power, and the more generous expenditure upon the upkeep of its property, should have made possible a great improvement in operating performance. Whether the improvement actually secured has been commensurate with the expenditure involved is a moot question.

IX. OPERATING RATIOS

137. The operating ratio of a railway (being the proportion of operating expenses to operating revenues) is generally regarded as indicative of the efficiency of operation and management of an enterprise. Under comparable conditions an increase in this ratio would indicate a falling off in the efficiency of the railway; a decrease in the ratio would suggest greater efficiency.

138. In comparing the performance of two railway systems on the basis of operating ratios, it is necessary, before drawing conclusions, to make allowance for factors that may adversely affect results in the case of one or the other, and to ascertain as far as possible that the figures that enter into the calcula-

tions are on a comparable basis. A detailed analysis and comparison of the operating accounts of the Canadian National and Canadian Pacific was made by an independent railway accountant employed by the commission to ensure a fair basis of comparison between the accounts. The results of this comparison appear in the following table:—

OPERATING RATIOS

Year	Canadian National	Canadian Pacific
	per cent	per cent
1923.....	91.8	81.0
1924.....	92.5	80.5
1925.....	86.7	77.3
1926.....	82.5	75.8
1927.....	84.9	78.5
1928.....	82.0	75.4
1929.....	85.6	77.3
1930.....	91.4	78.4
1931.....	99.8	80.3

139. There are undoubtedly factors that adversely affect the Canadian National in comparison with the Canadian Pacific. The officers of the National system operate two great railroads which were constructed as competitors, with consequent duplication of tracks, shops and facilities, a condition which the co-ordination which has gone on progressively for a decade has not yet entirely overcome. There are also considerations of lighter traffic and shorter average haul with consequent greater terminal and yard expenses in the case of the National lines.

140. The Canadian Pacific was constructed and developed as a single unified system of railways and thus avoided many of the disadvantages which apply to the Canadian National system.

141. An analysis and comparison of accounts of both companies, with due regard to the considerations put forward by the Canadian National as adversely affecting their operations, do not, in our opinion, justify the very considerable differences in the operating ratios of the two systems.

X. POLITICAL AND PUBLIC PRESSURE

142. The conduct of the affairs of the National Railway has been subjected in the past to political and public pressure. It is, however, necessary to make a distinction between unwarranted political interference and the influence of broad public policy. To the latter category belong several of Canada's major transportation schemes, such as the Intercolonial and Canadian Pacific projects, which were the outcome of definite political arrangements based upon broad national considerations. Others, such as the original Grand Trunk, in a lesser sense, and the Canadian Northern and Grand Trunk Pacific in more marked degree, represented a compromise between the aims of private promoters and the endeavour of the state to turn those ambitions to national advantage. While certain of these projects became warmly contested political issues, they were endorsed by the Canadian electorate at successive general elections, and were accepted as approved national policy.

143. The majority recommendations of the Royal Commission on Railways and Transportation in 1917 were designed to provide safeguards against political interference which is instinctively to be feared in the conduct of a public enterprise of the magnitude and character of the Canadian National Railways. But

the Government of the day declined to follow the plan of organization recommended by the commission, which was in substance to place control in a permanent and self-perpetuating Board of Trustees.

144. There was adopted, instead, the plan which is contained in the Canadian National Railway Act. This Act provides for a Board of Directors to a maximum number of seventeen, appointed by Order in Council, holding office from year to year. Appointment to the office of chairman of the board and president of the company is made by the Government, and concurred in by the board.

145. Under the circumstances, the directors' functions have been in practice nothing more than advisory. It would seem that they generally gave formal approval to programs of expenditures which they appeared to regard as the main concern of the president and the Government. This left the railway open to political influence and to public pressure exerted by communities and by associations of business and labour interests.

146. Of direct political interference by ministers and members of Parliament in the detail operations of the railway, we were assured by the officials there was little or none. It was in the larger sphere of policy that political considerations led to unwise and unnecessary capital expenditures, the result of which was to create an atmosphere in which the ordinary principles of commercial operation of the railway were lost sight of.

147. The President of the Canadian National Railways, in a considered statement made to this commission in the course of its inquiry, expressed the following views:—

"One of the inherent disadvantages of any state-owned enterprise such as the Canadian National Railway, is the problem of political interference—and one might also add, public pressure. In making this statement I wish it distinctly understood that I imply no criticism of any party or any government, present or past. I merely state a fundamental and universally admitted condition.

"The leaders of all political parties and the people of Canada as a whole are a unit in their desire to prevent political invasion of the Canadian National Railway. But the plain fact is that, irrespective of such wishes and desires, the problem presents difficulties beyond the control of our leaders, be they ever so patriotic or high minded. After all in any form of popular government it must be accepted as axiomatic that the business of government is politics and, irrespective of whether one likes it or not, politics is something with which a government must reckon in all its activities."

148. The President of the Canadian Pacific appeared to be more concerned over the activities of what he termed "politically-minded" executives of the publicly-owned railway than he was over straight political pressure for definite ends. He said:—

"We talk a great deal about political interference being damaging to railway operations, and we know that that is true, generally speaking. But when we say it we seem to think the only political influence is that exercised by a government, or a member of government, or a member of parliament. To my mind the worst kind comes from the political attitude of men in publicly-owned institutions. Possibly they are not conscious of it, but they become politically-minded; their policies and actions have a political tinge, and that, from my standpoint, is more serious as representing the attitude of the corporation than the isolated act of a member of parliament who tries to get a man employed.

"Years ago the ability of privately-owned railway companies to withstand political pressure was somewhat limited. To-day it is nothing like it was, because we can say 'no' to that kind of pressure. But the politics that develop inside an organization because it is publicly-owned, and not privately-owned, is a serious thing.

"We spoke of not being able to anticipate what government policies would be towards any railway, and I believe we cannot tell from year to year what the policy of any government would be in respect of its railway property. Providing it owns it, and has a measure of control of its policies, and so long as they are putting up the money we cannot avoid that possibility."

149. Possibly the year 1929 affords a striking example of what political and public pressure, presumably, were able to accomplish.

150. The Canadian National Railway requirements authorized by Parliament during the fiscal year 1929-30 were as follows:—

Canadian National Railway Budget for 1929.....	\$ 53,750,000	
Canadian National Eastern Lines Deficit (1929) and 20 per cent reduction in tolls.....	6,808,172	
Prince Edward Island Car Ferry construction.....	2,500,000	
Branch Line Construction (1929-1932).....	30,136,325	
Montreal Terminals (Construction).....	50,000,000	
Acquisition of Railways.....	31,247,500	
New Equipment Issue.....	18,000,000	
		\$ 192,441,997

In addition, construction programs were proceeding under prior legislation, the unused authorities being for:—

Branch Lines Construction.....	\$ 9,482,021	
Toronto Terminals Construction.....	3,583,863	
		\$ 13,065,884
Total expenditures authorized.....	\$ 205,507,881	

151. The actual cash expenditures during the same year covered by these authorizations amounted to \$113,859,777, the balance, \$91,748,104, being chargeable to subsequent years as construction work proceeded or obligations on account of roads purchased matured.

The foregoing does not take into account other legislation which provided for the refunding of \$18,000,000 of maturing securities, nor \$6,396,000 voted for the Hudson Bay Railway and terminal development, in the same year.

152. The net increase in funded debt of the Canadian National due the public for the year 1929 amounted to \$144,670,459; whereas the annual increase for the previous six years had averaged \$28,897,648.

153. Annual interest on the funded debt in the hands of the public, which, at the end of year 1928, was \$41,810,880, increased to \$55,587,145 at the end of the year 1931, due largely to the expansion policies of 1929.

154. When considering the scale upon which branch line extensions and acquisitions, as well as hotel expenditures were made, and railway and steamship services duplicated, it is impossible to avoid the conclusion that the Board of Directors and the management of National Railways were amenable to political influence and pressure, which it would have been in the public interest to have withstood.

CHAPTER IV

CONTRIBUTORY CAUSES OF THE RAILWAY PROBLEM

155. Before proceeding to discuss remedies for a solution of the transportation problem, it is proposed to summarize the factors that have contributed to our present situation. There may be differences of opinion in regard to the relative importance of these several factors, but there can be none as to their cumulative effect upon the railways or as to the necessity for a genuine attempt to improve the situation, both in the interests of the railways themselves and of the tax-payers of Canada. The principal contributory causes have been:—

1. The over-development of railways beyond the immediate needs of the country.
2. Aggressive and uncontrolled competition between two nation-wide railway enterprises, a competition the more disastrous in that one of the competitors was publicly-owned and supported by the full resources of the Dominion.
3. The reactions of the world trade repression which began in 1929 and has progressively increased in its severity with each succeeding year.
4. Competition from other forms of transport, notably road transport.
5. Inelasticity of freight rates and railway practice generally which prevents prompt action in the meeting of falling revenues and dealing effectively with competition from other forms of transport.
6. Contractual arrangements with labour organizations which set up a rigid wage scale and inflexible labour practices generally.
7. The special disabilities of the Canadian National Railways due to:—
 - (a) Assumption, through Government action, of liabilities of insolvent railway systems for reasons of national credit.
 - (b) Large capital expenditures for improvement of the physical condition of the absorbed systems.
 - (c) Political and community pressure on the management arising out of direct government control.

Of these items, three have already been dealt with in the preceding chapters, *i.e.*, aggressive and uncontrolled competition, political and community pressure on the management of the Canadian National, and the burden of excessive capital liabilities of the latter system. No further discussion of these matters is called for here.

I. EXCESS MILEAGE

156. In the earlier part of this report emphasis has been laid on the excess mileage of Canadian railways. The policy of branch line expansion in the period 1924 to 1930 has also been dealt with. It has been pointed out that the population per mile of steam railways in the United States is more than double that in the Dominion, and competent railway authorities in the United States concede that there is a great excess of mileage in their country. Reference has been made to the low traffic densities prevailing upon the greater part of the Canadian mileage. The traffic density maps, which accompany this report, tell the story in graphic form. In the interests of sound railway practice,

a careful examination of all light traffic lines should be undertaken forthwith by both railways to determine what should be retained and what should be abandoned. Where the decision is for abandonment, operations should be promptly suspended, and the salvaged material recovered then or later. Thought should be given to the operation of a considerable mileage during a portion of the year only. Radical reductions, not only in the service on these light traffic lines, but also in the mileage of this group is essential if economic security is to be restored to the railways.

II. TRADE DEPRESSION

157. In so far as the position of the Canadian railways is the result of the depression in world trade, they have merely shared the general fate of most industries and of railways in other countries. In the United States of America the recession in railway earnings did not appear until 1930, but by the end of 1931 the net operating income of the Class I roads had fallen from \$1,395,348,471 to \$662,314,465, (more than 50 per cent) which is greater than the reduction shown by the Canadian Pacific Railway Company. The more favourable showing of this company is no doubt due to the drastic reductions in working expenses and services, undertaken at an earlier date than on the United States roads, and therefore showing their full effects in 1931. Since any measures looking to a revival of trade are beyond the scope of the Commission's inquiry, we pass from this topic with the observation that an increase in traffic of even 20 per cent above the figures for 1931, which would still be below the gross earnings for 1925 would result in substantial improvement in the railway position in Canada. Experience gained in operating at reduced costs in the last two or three years should not be lost and should therefore be reflected in a greater ratio of net earnings.

III. COMPETITION FROM OTHER TRANSPORT AGENCIES

(a) ROAD TRANSPORT

158. Road transport in the past decade has challenged the supremacy of the railways in the field of transportation both in the conveyance of passengers and freight. In 1923 there were 515,178 private automobiles registered in Canada, while in 1931 this figure had increased to 1,024,385, an increase of nearly 100 per cent. During the same period motor coaches undoubtedly increased considerably. Records for years prior to 1927 are not available but the number of motor coaches registered in 1931 was 1,636, and this represented an increase of 61 per cent over 1927. Motor trucks, both privately-owned and common carrier, now number 165,855, which represents an increase of 214 per cent over the number registered in 1923. The total motor vehicle registrations (exclusive of motorcycles) increased during the period we have under review (viz. 1923 to 1931) from 576,668 to 1,197,188, or more than 100 per cent. This development has brought about a lasting revolution in the travel habits of the people, and in many respects has wrought a transformation in the economic and social life of the country. It has given facilities for transport never before enjoyed by the general public, and has given trade and industry facilities of great and permanent value.

159. But, while the motor vehicle has done much to create and stimulate travel, it has also effected the diversion of a considerable volume of traffic from the railways. It is the private automobile which has mainly been responsible for the diversion of the bulk of the passenger traffic to the highways, with the result that the short distance passenger traffic of the railways has shrunk to small proportions and their long distance passenger traffic is threatened. The

transfer of traffic from the railways to the motor coach has not in the aggregate reached, as yet, large dimensions, but the use of this agency of transport is increasing and its effect upon the railways has, in some of the more densely populated districts, already been considerable. In the conveyance of freight, the motor truck, principally the privately-owned, has made serious inroads into the short distance traffic of the railways.

160. In fairness to the road vehicle, it should be stated that this diversion of traffic from the railways to the highways is in many cases due to the fact that conveyance by road is intrinsically a more suitable form of transport, either because the convenience afforded by the road vehicle outweighs other considerations, or because it is definitely cheaper. But in so far as the diversion is due to lower costs as a result of road vehicles not bearing their fair share of the cost of the highways which they use, or because they are free from regulations analagous to those imposed on other forms of transport, then such a diversion may very well be opposed to the best interests of the country's welfare.

161. With the extension of hard-surface roads and the increasing mileage kept open in the winter, a wider use of motor vehicles must be anticipated and such an extension will bring in its train further diversion of traffic from the railways. In seeking a permanent solution of the railway problem in Canada this comparatively new and convenient form of transport, and its effect upon the railways, cannot be ignored, and a fair basis of competition between these two transport agencies, in so far as they are acting as common carriers of either passengers or freight, must be found, not only in the legitimate interests of the railways but also in the interests of the public and trade and industry generally. We feel that not only is unfair competition between railways definitely harmful to the general welfare but that unfair and unregulated competition between railways and road operators is also damaging, resulting as it does in waste and duplication of effort.

162. In an appendix to this report we have included a chapter giving statistics of highway transport in Canada and information as to the fees charged and the regulations imposed by provincial governments, together with a summary of the views submitted to us of various highway authorities and of those engaged in the motor transport industry.

163. It is generally recognized that there is a need for regulating road motor services and for equalizing the conditions under which road and rail services are provided. Especially is this need recognized when regard is had to the extent of the regulations imposed on the railways, to the almost entire absence of regulations of road operators, particularly those operating freight services, and to the fact that it has been the practice to establish railway freight rates on the assumption that the transportation of freight was to all intents and purposes the monopoly of the railways. Upon this hypothesis tariffs and tolls have been established on a comparatively high scale (when regard is had to the actual cost of operation) for the carriage of short distance package freight and for express services, and upon a lower and less remunerative scale for the transportation of heavy and bulky commodities which are generally conveyed over long distances.

164. If the railways lose a large part of their profitable short distance traffic to the roads a readjustment of the whole freight rate structure may be necessary, with a possible increase in the rates charged for the long distance and heavy freight traffic.

165. It is essential that the country should have the free and unhampered use of the cheapest forms of transport and therefore no restrictions which would unfairly prejudice the road user should be imposed. The railways themselves should be empowered to provide and operate services of road vehicles, subject

to whatever restrictions are imposed upon other road transport operators. On the other hand, in our opinion, in Canada, where of necessity freight must be conveyed in large quantities over long distances at all times of the year, railway transportation is essential to the economic welfare of the country. Because they are essential and because the railway freight rate structure implies conditions approximating to a quasi-monopoly, the railways require, if they are to continue to operate efficiently, a measure of protection from long distance road competition and an equalization of the conditions under which short distance traffic is carried.

166. Any restrictive regulations imposed on the road vehicle will not determine the division of the functions as between roads and railways except to a relatively limited extent. In our view, this division of function will not be best obtained through the arbitrary action of governments, but rather through the efforts of those engaged in the transport industry. By concentrating less on mutual competition and by turning their energies to the co-ordination of the services they provide, a properly co-ordinated system of transport will be evolved. In our view the true function of road transport, in such a co-ordinated system, as auxiliary and complementary to the steam railways, would appear.

167. Under the constitution of Canada regulation of road transport falls within the exclusive jurisdiction of provincial authorities. While the Dominion Government is not limited by the constitution in the matter of taxation, in practice road vehicle taxes are imposed solely by the provinces. These considerations make it inadvisable for us to make any specific recommendations in regard to the regulation and taxation of road transport. The federal and provincial governments in co-operation should, however, examine this question of the regulation and taxation of road motor vehicles with a view to equalizing the conditions under which road and rail transport is carried on, and to securing uniformity throughout the Dominion. A joint inquiry in which both federal and provincial governments were represented should enable a measure of agreement to be reached upon the general principles which should govern the regulation and taxation of motor vehicles using the public highways. The administration and adaptation from time to time of the agreed principles of road transport might be left to a consultative committee consisting of representatives of the various provincial governments and of the federal Government.

168. In our view the general principles upon which operators of road passenger services and common and contract carriers of freight should be regulated are as follows:—

- (i) Schedules of rates and charges should be published.
- (ii) Within those schedules common carriers of freight should accept and carry what is offered to them without discrimination between customers and commodities.
- (iii) Operators should be insured against all risks, including third party risks.
- (iv) Operators should keep accounts on a prescribed system and render returns to appropriate public authority on a common basis.
- (v) Minimum standards in regard to working conditions, including wages and hours of labour, should be required.
- (vi) In the interests of the safety of the public, a standard of fitness should be required of all operators in regard to their vehicles.
- (vii) Due regard should be had to the preservation of road surfaces, and, to this end, restrictions should be imposed upon the size and weight of road vehicles in accordance with the type and character of the highway.

169. Furthermore, we consider that any joint inquiry that may be set up to examine this question should give serious attention to the institution throughout the Dominion of a uniform system of licensing (in addition to the existing licensing for revenue purposes) of road passenger service vehicles and motor vehicles used for the conveyance of freight, whether operated as common carriers, contract carriers, or used exclusively for the conveyance of the freight of their owners. Under such a system it is suggested that a licence should only be granted to common carriers of passengers and freight where it can be proved to the satisfaction of the licensing authority that the service rendered, or proposed to be rendered, is in the public interest.

170. As regards the taxation of road motor vehicles, the amount of such taxation, including the tax on gasoline, should reflect a fair proportion of the cost of providing and maintaining the highways. A fair proportion would, in our opinion, be equivalent to two-thirds of the total cost in respect of highways in urban areas, while in the more undeveloped districts the proportion might be increased. As to the distribution over the various classes of vehicles, it is suggested that the scales of taxation should be so adjusted as to fall with greater severity upon the heavy long distance traffic.

(b) AVIATION

171. The development of aviation has been one of the phenomena of the present century and with the advance of aeronautical science, aircraft will play an increasingly important part as an agency of transport. Particularly will this be the case in this country where the physical and geographical characteristics, the sparsity of the population and the long distance between the centres of the population, all tend to favour air transport.

172. Good progress has already been made in the development of this new transportation instrument and much credit is due to those whose responsibility it is to foster that development. The aeroplane is already accepted as a normal means of transport throughout very large areas in Northern Canada. It has rendered possible travel to the farthest limits of the Dominion, with speed and comparative safety and without the large capital expenditures which are inseparable from roads and railways.

173. Great as are its potentialities, aviation is still in its infancy and we feel that it is too early to make any specific recommendations in regard to air transport. The Dominion Government should, however, keep in close touch with the developments which are taking place, and which will to an increasing extent take place in the field of aviation. It is encouraging to observe that the two principal railways have recognized the importance of the newer mode of travel and their investment in one of the largest aviation undertakings in the Dominion may well prove to be the foundation of a proper co-ordination between these two agencies of transport.

(c) WATERWAYS

174. For eight months of the year the facilities of the railways of Canada are duplicated through approximately one-third of their length by a system of inland water transportation which, developed by the Government at great cost, furnishes shippers of long-haul bulk commodities with a service at rates with which the railways are unable to compete. During the navigation season our inland waterway absorbs not only practically the whole of the eastbound export grain traffic from the head of the lakes to lower lake ports, but a considerable portion of internal traffic of the Eastern and Central regions in bulk commodities, such as coal, iron ore and cement.

175. The explanation of the apparent anomaly of a system of inland water transport, dependent upon canals, operating upon a vast scale, partly in conjunction, but largely in substitution for modern rail transport, is that in natural expanse, safety, despatch, and capacity, not to speak of sources of traffic, the Great Lakes-St. Lawrence waterway is without a counterpart among systems of inland navigation. To provide continuous navigation from Montreal through twelve hundred miles of lake and river and to the head of lake Superior has required only seventy miles of canalization. Indeed conditions of navigation on these great bodies of water present a resemblance much closer to the scale and freedom of ocean transport than to the restrictions of the narrow inland waterways which the original advent of railways so largely superseded.

176. The sources of traffic are as extensive as the system itself. Draining the mid-continental basin, the Great Lakes-St. Lawrence route provides not only an interior system of unique length, but an outlet, the sole large outlet by water, to the North Atlantic seaboard, for the widest and richest agricultural areas of both Canada and the United States.

177. The arterial pulse of the movement of commerce through the Great Lakes navigation system is to be found in the Canadian and United States locks at Sault Ste. Marie. It is not generally appreciated that the traffic through the St. Mary's river connecting lakes Superior and Huron is, in a normal season, in excess of the combined annual traffic through the Panama, the Suez, the Kiel and the Manchester Ship canals. In 1929 the total traffic passed at Sault Ste. Marie (Canadian and United States locks) was 92,616,808 tons; for the Panama it was 30,663,006; for the Suez, 33,466,014; for the Kiel, 21,613,088; and for the Manchester, 6,558,598, a total, for the four salt-water canals of 92,300,000, or a slightly less tonnage than that of the fresh-water system as registered at the principal tally point for our international inland waters.

178. As a result of the trade depression the decline in the ore and grain traffic of the upper lakes is strikingly indicated by the decrease in tonnage passing through the combined Sault Ste. Marie canals since 1929. In 1930, it dropped to 72,897,895 from the peak ninety-two millions in 1929, and to 44,606,325 in the season of navigation of 1931, or more than 50 per cent.

179. Plying these waters are scores of vessels of more than 600 feet in length and of 60 and 70 feet beam, some capable of carrying in a single load 17,000 tons, or 566,666 bushels of grain. The completion of the new Welland Ship canal has admitted these large upper lake freighters to lake Ontario and the upper St. Lawrence waters, and only one hundred miles of river remain to be dealt with to completely modernize the Great Lakes-St. Lawrence route from the ocean to the heart of the North American continent.

180. In 1931, by no means a representative year, the total traffic through the purely Canadian canals along this route amounted to 16,189,074 tons. This figure would necessarily include duplications of cargoes carried through two or more canals. To this movement 27,651 vessels contributed.

The classes of commodities carried included:

	Tons
Agricultural products.....	7,757,307
Animal products.....	15,830
Manufactures.....	2,976,780
Products of forests.....	748,419
Products of mines.....	4,690,738
Total.....	16,189,074

181. Two-thirds of the movement of agricultural products, as listed above, consisted of grain, principally wheat. Canadian wheat passing through the

Canadian and United States locks at Sault Ste. Marie during the season of 1931 amounted to 146,016,991 bushels, compared with 312,425,869 bushels in 1928.

182. The magnitude of this inland shipping route to the Atlantic should not be allowed to obscure the great importance to Canada of the Panama canal, not merely as a means of increasing the flow of export grain through the port of Vancouver, but in promoting generally the export trade of British Columbia. Nor should the effect upon Canadian transport generally of the utilization of the Panama canal as an alternative route for Canadian trans-continental traffic be overlooked. During the year ending June 30, 1930, Canadian inter-coastal cargo used this canal to the extent of approximately 180,000 tons westbound and 190,000 tons eastbound.

183. Railway transportation in so far as the movement of grain and bulk commodities is concerned has been largely adjusted to the problem presented by competition from the great inland waterway. The railways carry to and from the head of the lakes and to and from the lower lake ports. The movement of grain in particular is dependent on low inland water transport and the fortunes of the railways themselves in Western Canada are dependent upon the ability of the grain grower to place his product at low cost at ocean ports. In this movement to the eastern coast the inland waterways are a necessary part. If the producers of Western Canada are to continue in the business of growing for export the great bulk of grain and heavy commodity traffic between west and east must continue to use the inland waterways.

184. If and when grain in any considerable volume passes out of the country by the Hudson's Bay route, there will still remain a very large tonnage which will seek the eastern and western ports, and it is not likely that the volume of traffic from west to east will vary greatly from the present figures. Increases in production have in general kept pace with the movement of grain to the Pacific coast, and it is more than likely that a similar experience will result from the opening of the port of Churchill to the export grain trade.

185. While on first consideration it might appear that the construction of canals which are free of all tolls to water carriers is in effect a form of state subsidy to a rival transport agency, yet in so far at least as bulk traffic in grain and heavy commodities is concerned, complaint is not made by the railways on this score. The imposition of tolls would not help and would probably hinder the railways as tending to discourage production. The Canadian Pacific Railway has now, and for many years has had, its own lake boats engaged in the carriage of passengers and package freight, and the Canadian National Railway has a working arrangement for the same purpose with one of the largest of the lakes shipping companies.

186. The further development of the St. Lawrence and lower lakes canal system, whereby package freight may pass from Montreal direct to the head of the lakes without transshipment may eventually make further inroads into the all-rail haul from east to west, but in the case of much of the package freight movement, time is an essential element, and the railways should be able to hold a large share of this movement against their slower competitor.

187. Water-borne traffic will continue to be a factor of major importance in Canadian transportation both on the inland waterways and coastwise through the Panama canal, but rail traffic has in the main been adjusted to the conditions now existing and it does not seem probable that the developments now under way and in contemplation in connection with the Hudson's Bay route, and the deepening of the St. Lawrence-Great Lakes canals, will seriously prejudice the

position of the railways in the future. The competition of water-borne traffic has not been an important factor in bringing about the present difficulties of the railways.

IV. FREIGHT RATES

188. While we have refrained from making any recommendations we recognize that the question of freight tariffs and tolls is inextricably bound up with the question of transport. The position at the moment, however, is difficult and complex. It has been represented to us by many competent witnesses that any increase in tolls would only impose a further handicap on the Canadian manufacturer and producer at a time when they can least afford to shoulder additional burdens, and that the increased tolls might have the effect of so restricting traffic as to afford little, if any, relief to the railways.

189. It would appear that, at the moment, any adjustment of the freight tolls and tariffs would be inadvisable, but we feel it our duty before passing from this question, to express the view that even under more favourable circumstances the financial position of the railways may be such as to demand that the whole question of tariffs and tolls, in its widest sense, should be the subject of special investigation, with a view to determining whether or not the existing tariffs and tolls charged for the conveyance of freight are just and reasonable both to the railways and their customers. In determining what is fair and reasonable to the railways regard should be had *inter alia* to the cost (including the remuneration of the capital invested) of providing these services.

V. CONTRACTUAL RELATIONS WITH LABOUR

190. The wages and conditions of employment of a large majority of the employees of both railways are fixed by agreements with the trade unions concerned. A majority of these employees are members of trade unions which include not only employees of the railways in Canada but also of the railways in the United States. Whether by reason of this close affiliation, or for other reasons, it is the fact that the wages and conditions of service of railway employees in both countries are substantially on the same basis. In recent months the wages of the officers and employees of both systems have suffered certain reductions which have eased the burden upon the railways, and it is satisfactory to record that these changes have been made without any disturbance.

191. With the continuance of good relations between the management and employees of both systems, and a frank recognition of the serious financial situation, much can be done to ease the position of the railways, without imposing any undue hardship upon the employees.

VI. SPECIAL DISABILITIES OF THE CANADIAN NATIONAL RAILWAY

(a) EXCESSIVE CAPITALIZATION AND OVERHEAD CHARGES

192. The Canadian National System suffered under a heavy burden of capital liability and fixed charges with consequent unsatisfactory results of operations from the financial point of view. As this matter has already been dealt with in Chapter III no further reference to it need be made.

(b) PHYSICAL DISABILITIES OF THE NATIONAL SYSTEM

193. From 1917 to 1922, the management of the companies now comprised in the Canadian National System expended upon capital account in completion and improvement of the lines under their care the sum of \$222,547,181. When the new management took over the consolidated lines in 1923, further capital expenditures were required to put the System in condition to obtain a proper share of traffic. The task of bringing the road and equipment to the standard required for efficient operation was undertaken with enthusiasm, and money for these purposes was generously supplied by Parliament.

194. In the result, there emerged an efficient transport system affording a service of high standard and with a loyal and enthusiastic staff of officers and employees, but the price was heavy. In the nine-year period, as will be seen from the figures set up in paragraph No. 49 of this report, there was expended for improvements and betterments to roadway, for rolling stock and on lake and river services and the Montreal terminal scheme, but excluding all branch line construction, \$304,551,249. Capital for these purposes had to be raised by increasing the debt of the System. Fixed charges increased in this period by approximately \$20,000,000. The introduction of new capital in so large a volume, with every dollar carrying liability for interest from the moment it was expended, would have caused in itself a difficult financial position for the railway, even if there had been no depression in business.

CHAPTER V

PROPOSALS AND REMEDIES

195. We have carefully weighed the informing and voluminous evidence which has been placed before us in regard to a subject of major importance to the Canadian people, and, in arriving at our conclusions and making our recommendations, we have endeavoured to eliminate any considerations to what might be theoretically the best course to pursue under other circumstances and in other countries, and to base our judgment solely on what is best for the people of Canada.

196. We have already made definite recommendations in regard to Road Transport, but the main problem before the commission is to secure relief to Canada from the heavy burden arising out of the railway situation. To attain this relief drastic measures of economy are imperative and schemes having this object in mind have been suggested.

I. PLANS

197. The complete amalgamation of the two systems has been suggested as a method, not only for attaining a maximum of economy, but also for the most effective use of the properties. This raises the question whether it may be done either by public or private ownership. Whatever merits or demerits this proposal may have, the time is not opportune for giving serious consideration to this particular remedy; neither complete public nor complete private ownership is possible.

To establish a monopoly of such magnitude and importance would place in the hands of those responsible for the administration of the system powers that would, if not properly exercised, prejudice the interests of the Dominion as a whole.

198. It has also been suggested that the Canadian National Railways should be leased to the Canadian Pacific Railway, either in perpetuity or for such a period as would afford an opportunity to effect substantial economies.

A lease in perpetuity presents certain difficulties. It would, whatever safeguards may be adopted, result in the establishment of a monopoly.

199. Other reasons which militate against a perpetual lease are twofold: first, should the population of Canada greatly increase, the volume of traffic would grow and the railway mileage be materially enlarged, with the result that the management of so great a system might well become unwieldy and necessitate segregation. The second reason is a natural and justifiable hesitation to commit, finally, future generations, and even the present one, to a policy adopted under the stress of difficult circumstances, which may not be best adapted to a new set of conditions difficult to forecast.

200. It is acknowledged that a short term lease (fifteen years for example) would not provide the opportunity for the full measure of economy afforded by amalgamation, or for the wholesale abandonments of functionally duplicate lines, although it was claimed for this plan that it would ensure:

- (a) A considerable measure of improvement over the present situation and a clearly defined and undivided responsibility;

- (b) A valuable opportunity to weigh the advantages of unified operation in order that the people might decide, at a future date, and when the pressure of difficult financial conditions has been removed, as to the policy best adapted to the conditions, social and economic, of Canada;
- (c) A desirable relief from the heavy demands made upon the resources of the Government, not only to cover operating deficits of the National System, but also capital expenditures, which demands must either place too heavy a burden upon the taxpayer or limit expenditures for other important and necessary improvements;
- (d) That if as a condition of a short term lease a profit-sharing basis was developed, it would introduce in the unified operation of both systems the element of financial interest which would be conducive to efficient management;
- (e) That removal of railway management from political interference would be achieved effectively without suggesting self-imposed limitations on the exercise of the powers of the Government of Canada.

An objection to this proposal is that under such a plan the systems would tend to merge and that at the termination of the lease it would be extremely difficult to re-establish them as separate entities.

201. These and other plans have not fulfilled the conditions which in our opinion are necessary to any practicable solution of the Canadian railway problem. That solution must have regard to the following:—

- (i) Correct evils which admittedly are apparent in the operations of the past.
- (ii) Provide machinery for co-operation between the two railways with a view to improving their financial position.

202. For the sake of clarity certain main considerations which have been present to our minds are here stated:—

- (i) The identity of the two railway systems should be maintained.
- (ii) The management of the National Railways should be emancipated from political interference and community pressure.
- (iii) Machinery should be provided for co-operation between the two systems for the elimination of duplicate services and facilities and the avoidance of extravagance.
- (iv) The attainment of a scale of economies which will bring the burdens of the National System within reasonable dimensions and effectively check extravagant and costly operation.
- (v) Reasonable protection for the privately-owned undertaking against arbitrary action by the publicly owned undertaking which might unfairly prejudice the interests of the privately-owned undertaking.

In outline the plan we respectfully recommend for adoption is as follows:—

II. TRUSTEES

203. Three trustees should be appointed by the Governor in Council, in whom should be vested all the powers of the present Board of Directors of the Canadian National Railways, both in respect of the parent and all subsidiary corporations of the System; and any and every power and authority necessary to enable them to administer the property and operate the System and every part thereof.

Senators and Members of the House of Commons and persons holding or having within five years held office or place of profit under the Crown in the right of the Dominion or one of the provinces of Canada, should be disqualified for appointment.

Vacancies among the trustees shall be filled from a panel of eight named by the remaining trustees.

204. One of the trustees should be named as chairman at the date of his appointment with tenure of office seven years. The terms of the remaining trustees should, in order to prevent them expiring on the same date with each other, or on the same date as that of the chairman, be for differing periods of less than seven years, to be fixed in each case in the Order in Council making the appointment. All trustees should be eligible for re-election. All should be persons of proved business skill and capacity; the chairman in particular should have financial, administrative, and executive ability of a high order. On the points of integrity and ability involved in these qualifications, there should be no possibility of doubt in the case of any appointee. The chairman should give his whole time to the duties of his office. All trustees should be paid adequately, the chairman in particular should receive a salary commensurate with the high responsibility with which he is charged, and the special qualifications he must be assumed to possess.

A majority of the trustees should govern its decisions, subject to this qualification that the chairman must be a member of any majority.

III. BUDGET REQUIREMENTS OF SYSTEM

205. The annual budget of the railway should be under the control of the trustees. Amounts required for income deficits, including interest on railway obligations, for capital and for refunding, should first be submitted to the Treasury Board for its approval and presentation to Parliament by the Minister of Finance.

206. Since the debt of the System in the hands of the public is now very large and more than the railway can carry from its earnings even under improved conditions, sums which are required to meet deficits should be voted by Parliament annually and not raised by the issue of railway securities as has been done in recent years. This recommendation does not apply to capital for improvements and betterments nor to amounts required for refunding.

IV. ANNUAL REPORT TO PARLIAMENT

207. A report to Parliament by the trustees should be made annually, and should set forth in a summary way the results of operations and the amounts expended on capital account, brought into comparison with the appropriations made by Parliament, so that the exact position shall be placed before Parliament. There should also be provision against utilizing appropriations for capital account to cover deficits in operation, or for interest, without the express authority of Parliament.

V. AUDIT

208. A continuous audit of the accounts of the System should be made by independent auditors appointed by Parliament from a list or panel drawn up by the trustees and they should make a report to Parliament, calling attention to any matters which in their opinion call for remark. In view of the report of the auditors no examination of the detailed accounts of the System should be necessary by a parliamentary committee. For the purpose of supplying necessary information to Parliament the attendance of the trustees might be necessary. In the interests of discipline and to prevent prejudice to the relations that should prevail between trustees and the staff, we earnestly recommend that the officials of the company in charge of operations should not be asked to appear for examination.

VI. CHIEF OPERATING OFFICER

209. While the responsibility for the direction and control of the System should be laid upon the chairman and his associate trustees, provision should be made for the post of Chief Operating Officer, with the titular rank of President. Under his care should be placed the entire working of the railway in detail. The exact extent of his authority should be covered by regulations or by-laws to be made by the trustees.

The President should be appointed by the trustees and should be responsible to them and not directly to the Government or Parliament.

VII. CO-OPERATION BETWEEN THE RAILWAYS

210. We have emphasized the fact that a principal weakness of the past decade has been the failure of the railways to act together in their own interests and in the interests of the public. It is not enough that each should take all practicable measures of economy in respect of its own system. There must be joint action with a view to savings in the wider sphere.

211. A statutory duty should be imposed upon the trustees as well as upon the Board of Directors of the Canadian Pacific Railway that, consistently with the provisions of the existing law and with the recommendations of this report and with the provision of all reasonable services and facilities, they should adopt as soon as practicable such co-operative measures, plans and arrangements as shall, consistent with the proper handling of traffic, be best adapted to the removal of unnecessary or wasteful services or practices, to the avoidance of unwarranted duplication in services of facilities, and to the joint use and operation of all such properties as may conveniently and without undue detriment to either party, be so used.

VIII. CONFERENCE BETWEEN BOARDS

212. In order effectively to carry out the injunction to co-operate, the Board of Trustees of the Canadian National Railways and an equal number of directors of the Canadian Pacific Railway shall meet at regular intervals for the purpose of discussing and agreeing in respect of matters referred to in the previous paragraphs. In the event of a failure to agree, there may be an immediate reference to the Arbitral Tribunal provided for in the next succeeding paragraph.

IX. CONSTITUTION OF THE ARBITRAL TRIBUNAL

213. For the purpose of settling disputes and in particular, disputes concerning the desirability of any co-operative measures or arrangements or course of action and for the settling of details of any scheme giving effect thereto and for determining the conditions thereof, an Arbitral Tribunal should be set up for each occasion. The Arbitral Tribunal should be composed, first, of the Chief Commissioner of the Board of Railway Commissioners and second, of one representative from each of the two railways.

At the request of either railway and upon it being shown to the President of the Exchequer Court of Canada that the matter is of major importance, two additional members may be appointed by him to the Arbitral Tribunal for the occasion.

214. Where the execution of an order involves the doing of any act which by an existing statute requires the assent or approval of the Board of Railway Commissioners or where in the opinion of the Chief Commissioner himself the

public interests involved are of sufficient importance to warrant it, no order made by the Arbitral Tribunal shall be operative without the concurrence of the Chief Commissioner and his formal written assent.

The powers of the Arbitral Tribunal shall be capable of being invoked by either railway or by the Dominion or any provincial Government. Subject to the recommendations of this report, all matters of procedure before the Arbitral Tribunal should be governed by regulations made by the Chief Commissioner of the Board of Railway Commissioners with the approval of the Governor in Council.

In the event of conflict between the Board of Railway Commissioners and the Arbitral Tribunal, it should be made clear that the order or decision of the Arbitral Tribunal shall prevail.

X. JURISDICTION OF ARBITRAL TRIBUNAL

215. The Arbitral Tribunal ought not to have jurisdiction to order the construction of extensions and additions to existing lines and facilities, except in such minor matters as connections to give access to existing tracks and terminals which by order of the Arbitral Tribunal or otherwise are used, or are to be used, in common. Subject to the provisions of any statute relating to any particular railway, the Arbitral Tribunal will have full jurisdiction as to measures, plans and arrangements for the joint use of tracks and facilities.

216. It is not intended to define with precision the subject matters to which the jurisdiction of the Arbitral Tribunal shall extend, but without limiting the generality of the words used above, the Arbitral Tribunal shall have jurisdiction in relation to the following matters:—

- (a) Joint use of terminals.
- (b) Running rights and joint use of tracks where there are actual or functional duplications, or where such may be avoided.
- (c) Control and prohibition in respect of the construction of new lines and provision of facilities and additional services where no essential need of the public is involved.
- (d) The joint use of facilities where this would promote economy or permit the elimination of duplicating or unremunerative services or facilities.
- (e) Abandonment of lines, services or facilities.
- (f) Pooling of any part or parts of freight traffic or of passenger traffic.
- (g) Things necessarily incidental to the above enumerated matters.

217. The conditions and terms of any order should be entirely within the discretion of the Arbitral Tribunal.

218. There shall be no appeal to any court in Canada from any decision of the Arbitral Tribunal on any question of law or fact; except as to a question of law if it is one involving a question of jurisdiction, in which case there should be an appeal to the Supreme Court of Canada, by leave of a judge of that court.

219. Subject to the provisions of paragraph 218 hereof, section 44 of the Railway Act shall apply; the first paragraph of section 52 of the same Act shall not apply.

XI. ANCILLARY SERVICES

220. Both the Canadian National and the Canadian Pacific at present own either directly or indirectly through subsidiaries, hotels, telegraph systems and express services, each company's service being operated at many points in competition with that of the other. In addition a number of other ancillary services are owned, but, in the main, they are not operated in competition.

221. It is admitted that competition in some of these services had lead to a great deal of unnecessary capital expenditure and to their development beyond what is actually required.

222. It is the opinion of the Commission that aggressive competition should cease, and that the suggested Board of Trustees of the Canadian National Railways and the Board of Directors of the Canadian Pacific Railway should formulate and agree to schemes which will permit of the working in harmony of those ancillary services which are now operated competitively. If this problem is attacked by the two managements with goodwill and the desire to co-operate considerable economies should result from their efforts and without in any way prejudicing the service rendered to the public.

XII. CONCLUSIONS

223. Although our terms of reference are strictly concerned with the problems arising out of the transportation situation in Canada, we cannot but be conscious of the national difficulties, in which the financial position of the publicly-owned railways is a factor of first importance. Indeed, we apprehend that the urgent need of discovering means of reducing the large railway deficits was a primary factor in causing the Government to place upon us our onerous task.

224. In the foregoing report we have outlined a plan which we believe will ensure progressive and co-ordinated development on an economic basis of the railway systems and afford early relief to the Federal treasury by reducing the alarming and increasing deficits and the demands for further capital expenditure in connection with the Canadian National Railway System.

225. Whilst all members of this commission concur in these recommendations which, if carried out in letter and spirit by all concerned (the Government, the Public and the Railways), should effect a considerable measure of relief to the taxpayers of Canada, some members would have preferred a plan which would have established a complete dissociation of the Government of Canada from the responsibilities of competitive railway management or of any direct interest therein.

226. We feel compelled, as a matter of public duty, to strike a serious note of warning to the people of Canada. Unless the country is prepared to adopt the plan we have proposed, or some other equally effective measures, to secure the efficient and economical working of both railway systems and thereby not only reduce the burden on the federal treasury but improve the financial position of the privately-owned railway, then the only courses that would be left would be either to effect savings in national expenditure in other directions, or to add still further to the burdens under which the industries of the country are suffering by the imposition of yet further taxation. Failing the adoption of one or other of these courses, and there are obvious limits to their application, the very stability of the nation's finances and the financial credit of the Canadian Pacific Railway will be threatened, with serious consequences to the people of Canada and to those who have invested their savings in that railway.

It is appropriate at this stage to refer to the services of our Secretaries, Mr. Arthur Moxon, K.C., Mr. George W. Yates, Assistant Deputy Minister, Department of Railways and Canals, and Mr. E. Hume Blake; also of Mr. A. V. Franklin, Railway Auditor, Department of Railways and Canals. The energy, knowledge and tact directed by Mr. Moxon and Mr. Yates in the preparation of the report could not have been surpassed, and the assistance of all in their several spheres was as effectual as possible.

All of which we humbly submit for Your Excellency's gracious consideration.

LYMAN P. DUFF,
Chairman,
ASHFIELD,
J. W. FLAVELLE,
BEAUDRY LEMAN,
LEONOR F. LOREE,
WALTER C. MURRAY,
JOHN CLARENCE WEBSTER.

ARTHUR MOXON,
GEO. W. YATES,
Secretaries.

September 13, 1932.

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APPENDIX I

THE DEVELOPMENT OF TRANSPORTATION IN CANADA

TRANSPORTATION IN RELATION TO PHYSICAL FEATURES AND POPULATION

Transportation in Canada—whether by water, road, rail or air—is, and always has been, dominated by the physical geography of the country. The position of mountains, lakes and rivers; the distribution of mineral wealth; the location of good agricultural land; and the varying nature of the climate have dictated both the placing of settlements, and the lines of communication. With an area of 3,684,723 square miles Canada is a very large country; thirty times as large, for example, as the British Isles. While a large portion of this area has at present no need for established transportation services, the main lines of communication are required in the most heavily populated districts, which stretch in a broken and comparatively narrow fringe along the four thousand miles of the southern boundary.

Of necessity, then, the principal transportation routes are of relatively great length. In addition, they pass at intervals through country which by its character creates natural obstructions. In relation to roads such obstructions take the form of mountainous areas or water barriers; and, in relation to water routes, falls and rapids or complete breaks in the chain. The most significant obstacles, however, are those in the path of the transcontinental railways. The maritime provinces of the Atlantic Seaboard are separated from direct access to the central industrial areas of Quebec and Ontario both by the northern part of the State of Maine and by the sparsely settled upland forest that runs towards the St. Lawrence.

Near where the vast waterway formed by the St. Lawrence and the Great Lakes makes its contact with the edge of the western plain, two thousand miles inland from the Atlantic, occurs the second major obstruction to communication overland. Reaching north from lake Superior to Hudson's bay, a stretch of country broken by rock and lakes, nearly eight hundred miles in width, divides Eastern Canada from the prairie. That this sparsely inhabited region forms part of the great pre-Cambrian shield, which is now beginning to provide an important source of mineral wealth, makes it none the less a continuing hindrance to the economical operation of transportation overland.

These largely undeveloped and sparsely settled lands north of lake Superior form, in fact, not only the central, but the chief obstruction to the east and west channel of communication upon which depends the political no less than the economic vitality of Canadian Confederation. For while the third great barrier, the mountain range, or rather the four ranges, five hundred miles in width, of the Cordillera System which separate the western plain from the Pacific ocean, present, as an obstacle of nature, by far the most imposing appearance, they do not present, from an economic point of view, as serious an obstruction as does the vast area, wooded and mineralized, that cuts Canada in two. This region, largely barren from the transportation standpoint, constitutes an unproductive traffic bridge of exceptional length and ruggedness.

While the physical conditions in Canada thus create serious problems for the construction and operation of railways, the waterways offer a ready method of transportation. Disposed by nature for east and west communication, the rivers and lakes are, and always have been employed for this purpose; but

their use is limited by a comparatively severe climate. Navigation, even in the most southerly districts, can be maintained for less than two-thirds of the year. As a further limitation there have already been mentioned the presence of rapids and falls, and the lack of natural communication between one waterway and another.

Thus the fundamental problem of transportation in Canada may be traced to two principal and related factors: the population is relatively small, and is spread over a long stretch of territory; and to connect the settled areas, railways must overcome great obstacles reared by nature.

EARLY METHODS OF TRANSPORTATION

The water routes which led the French explorers, settlers and fur-traders into Canada, remained throughout the French regime the chief means of communication for men and goods. The birch-bark canoe, the river boat and the lake sail-boat were all suitable to a land of rivers and lakes, on the shores of which began the limitless forests. Roads, however, were also necessary to connect the settlements, and these were early begun. In 1734, the first continuous road between Quebec and Montreal was opened, and the mails followed this route.

The loyalists of the American revolution, the first British immigrants to enter Canada in any large numbers, followed, too, the St. Lawrence route. Passing beyond the French settlements on the river, they gradually opened districts on or near the shores of lake Ontario. For half a century the building of roads was continuous, but the results were far from satisfactory. The rough "corduroy" road was, whenever possible, superseded by planked or macadam roads, but these, being expensive, remained rare. In all settled parts of Canada through roads were opened, though the surfaces were bad and the grades heavy. Many of the roads were little more than forest trails. The Kempt Road, connecting the Saint John, New Brunswick, with Quebec, traversed 455 miles, but as late as 1840 it was often impassible over long stretches. In 1817 a stage service was begun between Montreal and Toronto, but the discomfort was considerable, and the cost was high—from Toronto to Kingston alone the fare was \$18. This high cost of transportation affected freight as well as passenger traffic, with the result that, though roads were built for military purposes and to connect inland districts in all the provinces, road travel long remained slow, uncomfortable and expensive. But, with all their weaknesses, the roads were constructed as a necessary means of communication between localities, between provinces, and with the ocean ports and the United States. By 1830 there were some 6,000 miles of post road. Up to 1841 the provinces of Upper and Lower Canada alone had spent two million dollars in aid of road construction, and had also guaranteed interest on the obligations of some of the many turnpike trusts.

In all parts of Canada in which it was feasible, transportation by water was used as an alternative to that by road. On the St. Lawrence and on the waterways used by the Hudson's Bay Company, *bateaux*, Durham boats and York boats were an ordinary method of travel. On the Great Lakes sailing boats of various types continued to increase from the days of French rule. In the maritime provinces, coastal schooners were, of course, common.

INLAND LAKE AND RIVER STEAMERS

Though sail-boats continued to flourish for many years the invention of the steamboat greatly added to the comfort of travelling. In the year 1809, the steamer *Accommodation*, with some assistance from horse towage at difficult

points, made its first halting trip from Quebec to Montreal. In 1816 the first steamboat in the maritime provinces made its appearance on the St. John river. By 1837 the lower St. Lawrence boasted in the *Canada*, the largest and fastest steamer in North America; and lake Ontario enjoyed a service of steamers that, for speed and comfort, compared favourably with anything on the continent. Indeed, the twenty years that had succeeded Fulton's first demonstration on the Hudson had witnessed a development in inland steam navigation that not only brought to a country with such extensive waterways as Canada's an entirely new outlook in transportation, but actually an approximation to perfection in the instrument itself. Judged even by present-day standards these early lake and river steamers had already achieved speed, safety, and a high degree of comfort.

DEVELOPMENT OF THE WATERWAYS: CANALS AND PORTAGE RAILWAYS

The wide use of the steamer, together with the increase of population and of industry, brought with it a demand for the construction of canals to permit the uninterrupted utilization of the inland waterways. Hitherto canalization had been confined to the provision of an occasional shallow work to facilitate the passage of the Upper St. Lawrence *bateaux* at points of special difficulty. The advent of the steamer now revealed the possibilities of enlarged operations; but the first important undertaking deliberately avoided the direct, main channel. Military considerations arising out of the War of 1912, inspired the selection of the more secluded, triangular, and restricted route of the Ottawa river and the Rideau lakes as a line of communication between Upper and Lower Canada, and the work, carried through at the expense of the Imperial Government, and completed in 1832, for a time diverted much of the through traffic from the St. Lawrence. The completion of the post-road from Montreal to Kingston, utilized in conjunction with the navigable reaches of the river as a composite route partly by land and partly by water, restored much of this traffic to the St. Lawrence even before the difficult work of canalization was completed; and when, in 1841, the union of the provinces made possible a complete canal system nine feet in depth on the direct route of the Upper St. Lawrence, the issue was placed beyond doubt. Henceforth the tortuous, small-scale route of the Rideau system continued steadily to decline in importance, while the St. Lawrence continued to expand.

Meanwhile, as settlement spread further west beyond lake Ontario across the Niagara peninsula to the Huron Tract, a demand had arisen for a canal that would provide a passage from lake Ontario to lake Erie around Niagara falls. This most formidable obstacle to the continuity of inland navigation, which had involved the transshipment of all supplies for the western settlements across a portage twenty-seven miles in length, had been surmounted in 1829 by the completion of the first Welland canal, which gave a depth of eight feet. Wood was used for the locks and sides. So that, prior to the advent of railway operation in Canada upon a commercial scale, the development of inland navigation had proceeded to a point where it provided an uninterrupted channel of communication from the tide-waters of the lower St. Lawrence to the most remote settlements on lake Huron.

As an alternative method of overcoming the obstacles of the great falls and rapids on the St. Lawrence System, portage railways were for some years employed to transport goods around the break in navigable water. The first experiment of this kind—actually the first steam railway in British North America—was the Champlain and St. Lawrence, opened in 1837, which ran from La Prairie on the St. Lawrence to St. John on the Richelieu river, thus facilitating the movement of passengers and freight from Montreal to New

York. In accordance with its purpose the railway was only operated during the navigation season. Further lines of the same nature were later built, such as the Montreal and Lachine (1847), which ran the eight miles around the Lachine rapids, and the Erie and Ontario (1854) which ran from Chippewa to Niagara-on-the-Lake.

THE FIRST RAILWAY ERA: THE 'FIFTIES

In 1850 the steam railway mileage of Canada amounted to only 66 miles of primitive and fragmentary line. For all its economy and natural advantage, a system of transport that depended primarily upon inland waterways presented serious shortcomings in a country exposed to a winter climate of sufficient severity to interrupt navigation for nearly half the year. As a substitute, particularly in the spring and fall, the rough unsurfaced highways of those days were totally inadequate to the growing colony; and it is said that, with the forming of the ice on the river, the prices of produce in Montreal used to double. During the 'forties the early "experiments" in Canada, together with the more ambitious performance in England and the United States, showed that steam railways were more than a mechanical novelty; and the new method of transportation offered nowhere greater possibilities of usefulness than in Canada with its long distances and scattered population. Together with the realization of the importance of railways came the willingness of the various governments to assist financially a means of transportation that was increasingly seen to be essential to the development of the country. The ten years from 1850 to 1860 saw a remarkable outburst of construction, and an even greater activity in promotion, chartering and stock-jobbing.

The support which the governments brought was more than financial; for the statesmen as well as the financiers and builders began to take an active part in the furtherance of railway projects. Government guarantees, in various forms, became the order of the day; and thus railways were almost from the first, like roads and canals, matters of national concern. In Nova Scotia and New Brunswick ambitious plans were drawn, but in spite of the energy of Joseph Howe sufficient financial assistance could not be obtained. Neither of the two rival plans—a line from Halifax to Quebec, and a line from Halifax to Portland—was actually constructed for more than a few miles. In the Province of Canada the results were more tangible. Francis Hincks was the chief driving-force in the government, while the willingness of the great English contracting firm of Peto, Brassey and Company to undertake construction and find part of the capital was a further factor making for success. Lines, variously financed, were struck out in several strategic directions: the Northern Railway joined Toronto and Collingwood (on Georgian Bay) by 1854 and so facilitated travel to the upper lakes and far west. After many delays the Great Western was pushed through, so that in 1860 it operated lines from Toronto and the Niagara river to Sarnia and Windsor, and from Windsor through American territory to lake Michigan.

ORIGIN OF THE GRAND TRUNK

But the most important railway project of these years—both in its original plan and further development—was that of the Grand Trunk Railway. Various proposals for route, management and financing were made, but finally one was adopted and appeared in the glowing prospectus of the new company, issued in London early in 1853. This promotion called for the construction or operation of 1,212 miles of road, extending from Sarnia, through Toronto

and Montreal to Trois Pistoles in Canada East (province of Quebec) and to Portland, Maine, by lease of the Atlantic and St. Lawrence Railway. The project was backed by government guarantee.

One-half the shares and debentures were offered at once and heavily oversubscribed. Construction of new line was begun, and arrangement made for the acquisition or rental of certain existing lines. By 1860 the first program was more than carried out, giving the Grand Trunk a direct line from Sarnia through the length of southern Ontario to Montreal. There it divided: one line going southward to Portland, Maine, and the other along the St. Lawrence to Riviere du Loup.

END OF THE FIRST PERIOD OF CONSTRUCTION

By 1860 the force behind early railway construction in Canada was exhausted and a pause ensued. In the decade 1850-1860 there had been added almost exactly 2,000 miles of road in operation to the humble total of 66 existing in 1850.

Constructed, in the case of the Grand Trunk particularly, to a standard intended to be high, with costly adjuncts such as the Victoria bridge at Montreal, and traversing to a great extent a settled community, the early railways of central Canada were not so much "development roads" as colonial counterparts of the first trunk lines of Great Britain and Europe. Long sections of their routes paralleled existing highways—then no disadvantage—but their main lines, to follow the belt of population, had to hold to the general course of the great waterway, then their principal competitor, which the Government continued periodically to deepen and improve. Nearly all of them suffered, too, from the defect of absentee direction; for, even in the case of the Grand Trunk, the initial arrangement for Canadian representation on the board of directors gave way, in time, to control from London. Confronted with these difficulties the wonder is, not that they failed to prosper, but that they succeeded generally in avoiding the receivership soon to become so prevalent in the United States. All things considered, the Grand Trunk especially constituted a noteworthy achievement; involved in a ceaseless contest with the railways of the then American West whose through traffic it sought to tap (though still dependent upon them for its connection with Chicago), handicapped at the outset by differences of gauge, and duplicating in part the line of its principal local rival, the Great Western, the Grand Trunk yet succeeded in supplying Central Canada before Confederation with an extensive and on the whole effective railway service.

CONFEDERATION AND TRANSPORTATION

For services of transportation, the provinces of Nova Scotia, New Brunswick and Canada (Quebec and Ontario), which were federated into the Dominion of Canada in 1867, brought roads, waterways and canals. The roads, which remained under the control of the provinces, had developed both in quantity and quality, but in neither were they adequate for through transport, for, though stage coaches plied over certain main highways, no motive power for quick road transportation had yet been discovered. The waterways had been to a large extent made available for through communication by means of canals, the total expenditure on canals before 1867 being \$20,692,244. The mileage of the railways and the principal routes have already been mentioned. The total capital expended on Canadian railways in the period ending in 1867 was \$147,817,217. Of this expenditure \$11,054,000 was in Nova Scotia and New Brunswick and \$136,763,217 in the Canadas. In these latter provinces the investments by municipalities in railway enterprises amounted to \$5,867,000. As the direct contributions of the two Canadas amounted to \$20,264,800 the sum of \$116,498,417 will be seen to have been provided from other than government sources.

The British North America Act of 1867 joined the older provinces in a political union; it remained, however, to make that union a reality both politically and economically. One of the principal means towards this national end was the development of transportation to a state in which all the provinces had easy communications with each other. As has been mentioned above, transportation in Canada was never wholly disassociated from government enterprise; but political union made possible for the first time a national policy towards transportation, which is best expressed in the original meaning of the phrase "political economy."

JURISDICTION AND ADMINISTRATION

It was provided by the British North America Act that all transportation agencies, the operations of which extended beyond the confines of any province, should be subject to the jurisdiction of the Parliament of Canada, while those operating within any one province should remain subject to provincial jurisdiction.¹ Railways are chartered either by the Parliament of Canada or a provincial legislature. In the early years of the Dominion responsibility for the construction and operation of government railways and the general oversight of private railway enterprises lay with the Department of Public Works; but at the time of the completion of the Intercolonial Railway, and the consideration of a Pacific Railway, it became necessary to set up a separate Department of Railways. Because of the relation of the problems of railways and waterways, the construction of canals was also placed under the new department. Improvements in channels below Montreal were placed under the jurisdiction of the Department of Marine, and improvements in Canadian waters above Montreal under the Department of Public Works.

CANALS, AFTER CONFEDERATION

Though the most spectacular developments in transportation in the era after Confederation were in railway building, the improvement of the waterways system was pursued with similar object. Confederation, operating in a political sense, produced the strongest incentive to the development of the one natural channel of communication possessed by the new Dominion.

Agricultural expansion in the middle west, operating commercially and in a manner similar to its effect upon the strategic location of the Grand Trunk, prompted an expansion of the waterway that would attract to the Canadian route the export grain traffic of the mid-western States, and thus neutralize the diversion, not only of American, but of much Canadian traffic through the Erie canal to New York.

Under the influence of these factors a further enlargement of the connecting canals in the Great Lakes-St. Lawrence System was undertaken, the deepening of the Welland canal to twelve feet being commenced in 1871 and a further deepening to fourteen feet being decided upon in 1875. Work on the St. Lawrence canals lagged somewhat behind, but before the close of the century the whole connecting canal system had been enlarged to a minimum depth of fourteen feet, at a cost to the Dominion Government of approximately \$100,000,000.

As a bid for the American grain trade the work of enlargement, however, proved largely ineffective. The draught of the upper lake freighters increased faster than the depth of the Welland canal; and these larger vessels, which the Welland canal could not accommodate, enjoyed an ascendancy in the matter of rates. Moreover, all grain vessels discharging at American ports enjoyed an additional advantage in the availability of return cargoes of coal. So the bulk of the grain trade, instead of following the Canadian route to Montreal,

¹ Imperial Statute, 30 and 31 Victoria, Cap. III, Section 92.

either descended the Erie canal under the inducement of reduced tolls or moved by American rails to the port of New York, the attraction of whose diversified shipping, then as now, exercised a potent influence upon the flow of export grain.

No substantial change in this situation, either from the point of view of the flow of the grain trade or the capacity of the canals connecting the Great Lakes, occurred until after the turn of the century, when the expansion of the Canadian West was to result not only in an increased outflow of export grain through Canadian channels but was to involve the further enlargement of facilities for inland shipping.

Inland waterways in Canada have never failed to offer an effective competition to railways in the carriage of heavy freight. The presence of great rivers and lakes, forming almost an uninterrupted passage from the Atlantic to the western prairies, accounts for the continuance of water transportation. Whereas in some other countries—England, for example—the value of canals almost disappeared with the development of railways, in Canada there have been needed only short canals to make navigable those sections of the waterways that were obstructed in one way or another.

INTERCOLONIAL RAILWAY

The promise of railway construction formed an integral part not only of the arrangement of 1867 but also of the terms on which Prince Edward Island and British Columbia later entered the Dominion.

In relation to Prince Edward Island no more need be said than that the adoption by the Dominion Government of the railway debt and the guarantee of a year-round ferry service were two of the reasons that brought the island into the federation in 1873.

The failure of the early attempts to secure a line from Halifax to Quebec has already been mentioned. One of the arguments which successfully carried the confederation project in the maritime provinces was that a railway joining them to Central Canada could and would be built. The promise was written into the Act of 1867,¹ and the long cherished hope soon became a reality.

For this formidable undertaking, there was selected, largely at the instance of the Imperial Government, which had agreed to guarantee a loan, the long circuitous route of the Royal Engineers' Survey of 1847. This route, its supposed military advantage emphasized by certain incidents of the American Civil War, represented the most distant practicable arc from the American border. In other respects, however, the so-called military survey suffered by comparison with the more direct routes—one approximating that of the National Transcontinental of nearly fifty years later, another projected to descend the fertile valley of the St. John. Thus excessive length and costly construction were added to the economic difficulties of bridging the unproductive gap between Central Canada and the Maritimes, and any real prospect of profitable operation was excluded from the start.

Completed in 1876, from Truro where it connected with Halifax, to Riviere du Loup where the Grand Trunk gave it access to Quebec and Montreal, the Intercolonial added some 700 miles of railway, and its cost brought the amount to which public credit was involved in railway construction at that time, to considerably over \$100,000,000. Subsequent extensions, and operation by the Government upon a generally unprofitable basis have since added greatly to the investment represented by the Intercolonial. The line constituted in its inception, however, and remains to-day an essential national undertaking. Besides forming the original link in what has since become the extended and multiple chain of railway communication that connects from east to west the

¹ Section 145.

geographically disjointed belt of Canadian Confederation, the Intercolonial continues to serve as the principal purely Canadian outlet, available throughout the year, to the Atlantic seaboard. So if to-day the Intercolonial, forming with the National Transcontinental Railway the eastern lines of the Canadian National System, seems to present many of the aspects of commercial failure, it should be remembered that its economic defects are to a great extent inseparable from an origin that had its roots, and remains rooted, in the broader considerations of public policy.

INITIAL PROJECTS FOR WESTERN DEVELOPMENT

The Intercolonial formed the eastern arm of the railway link between the sections of Canada. In 1869, two years after the original Act of Confederation, the vast western territory that had formed the preserve of the Hudson's Bay Company was acquired. This addition had long been a dream of certain far-sighted Canadians, as had been its corollary, rail connection with Central Canada. The Red River rebellion which broke out on the initiation of government land surveys in the new territory drew attention to the difficulties of transportation. Unless use was made of American railways, the new west could only be reached by rail to Georgian bay, and thence by alternate boat and waggon transport.

The immediate pressure towards a Pacific railway came, however, from the terms on which British Columbia joined the Dominion, for one of these called for the commencement within two years, and the completion within ten, of a railway from the Pacific to join the existing railway system of Canada.¹ The Canadian Government decided that the road should be built by private enterprise, and towards that end made arrangements with a private syndicate, largely Canadian in its direction. Before these arrangements could be put into effect, however, the ministry resigned, partly because of its relations with the syndicate, which then voluntarily gave up its charter.

The succeeding administration of Alexander Mackenzie, hampered by the economic depression which began in 1873, made slow progress. Having failed to interest other capitalists to undertake the work, the government undertook the construction as a public enterprise of the Pacific railway, building first only those sections which could be integrated with the waterways to form a line of communication.² The plan implied modification of the agreement with British Columbia and protests were made. Finally Lord Carnarvon acted as arbitrator, and on November 17, 1874, he gave a decision, which was in part that the railway should be completed from the Pacific coast to the western end of Lake Superior by the end of 1890.

THE INITIATION OF THE CANADIAN PACIFIC

In 1878 Sir John Macdonald once more came back into power, and the Pacific railway became one of the primary interests of the new government. For two years construction by the Government was continued, attempts to interest either the British Government or the Grand Trunk having failed. In 1880, however, the Government was successful in signing a contract with a syndicate (later known as the Canadian Pacific Railway Company) for the construction of a Pacific railway. By the terms of the contract, which was signed on October 21 and laid before Parliament in December, the syndicate was given free the 710 miles of track constructed or under construction by the Government, and representing a cost of \$37,791,435; a cash subsidy of \$25,000,000; a land subsidy

¹ See the Imperial Order in Council of May 16; 1871.

² 37 Vic., Cap. 14.

of 25,000,000 selected acres;¹ exemption from import duties on materials for construction, from taxes on land for twenty years after the patents were issued and on stock and other property for ever; exemption from regulation of rates until 10 per cent per annum was earned on the capital; and a monopoly clause by which the Canadian Pacific was practically freed from competition between its line and the American border.²

Although encountering financial difficulties of a serious nature, which necessitated further assistance from the Government in the shape of loans amounting to \$35,000,000 the railway was completed (to the accompaniment of a further rising of Indians and half-breeds) in, roughly, half the stipulated time; and, in 1886, it began to operate as a complete link between Eastern Canada, the prairies and the Pacific coast.

DEVELOPMENT OF THE CANADIAN PACIFIC IN THE EAST

To secure a through haul and the full benefit of its enterprise, the Canadian Pacific had now to expand in the East, or remain, in the words of its first president, a body without arms, dependent upon the charity of its principal eastern antagonist. The Grand Trunk had, in fact, now assumed, after its absorption of the Great Western in 1883 (following ineffectual efforts in pooling and co-operation) the dominating position in eastern transport; and it now opposed with every means at its disposal the development in the east of the new railway. A second burst of railway construction in Ontario in the "seventies" had created a considerable independent mileage, for the acquisition of which the Canadian Pacific and the Grand Trunk proceeded to compete; and by 1890, little remained that had not been absorbed by one or other of the two principal antagonists. Thus, by purchase, as well as by new construction, the Canadian Pacific expanded its eastern interests to include a continuous system through southern Ontario and Quebec, a link with the maritimes through Maine, a winter port at St. John, N.B., and control of the Dominion Atlantic Railway of Nova Scotia. The construction of hotels, and operations in inland, coastal, and ocean shipping, both on the Atlantic and the Pacific followed.

While providing facilities in eastern Canada, on the whole less extensive than those of the Grand Trunk, the Canadian Pacific enjoyed the advantages of a long haul, low initial cost, and an energetic management, which soon put it in a position of financial strength to which the older company, with its handicaps of heavy capitalization, absentee direction and restricted territory was never able to attain.

PROJECTS OF FURTHER CONSTRUCTION IN THE WEST

While additional mileage continued to be added in the industrial districts of Central Canada, the next important stage in the development of Canadian railways—and indeed of Canadian transportation as a whole—came with the decision to construct further transcontinental lines.

There were several reasons which suggested such additional lines. Some dissatisfaction existed in the west over the lack of railway competition, the strong desire for which was shown when the Manitoba Government, following the virtual abrogation in 1888 of the monopoly clause in the Canadian Pacific's charter in consideration of a Dominion guarantee of interest on a bond issue of

¹ Of this 6,793,014 acres were later returned in exchange for a cash subsidy of \$10,189,521. Later grants totalling 1,710,400 acres were made, and subsidiaries which later formed part of the C.P.R. received grants totalling 6,139,963 acres. The original grant was given in alternate sections of 640 acres, 24 miles deep on each side of the railway from Winnipeg to Jasper House. Sections unfit for settlement and deficiencies were made up between 49th and 57th parallels or along branch lines.

² 44 Vic., Cap. 1.

\$15,000,000 by that railway, hastened to arrange for an extension into Manitoba of the Northern Pacific. A further reason was the growth of immigration and business that came at the close of the century with the end of a long period of depression. The number of immigrants, which fell to 16,835 in 1896, gradually rose again, reaching 128,364 in 1903 and continuing to climb. This increase was, of course, in part a result as well as a cause of railway construction. Industry in general, however, got a new impetus; agricultural production, for example, increased by 36·8 per cent and manufactured products by 142·3 per cent in the first decade of the twentieth century. Coming as it did after a number of lean years, the improved situation led to general optimism.

There existed two railways which were anxious to take advantage of the business arising out of the growth of the west. The proposal came from the Grand Trunk that that company should reach out to the prairies by leasing lines from Chicago (its western terminus) to Winnipeg, and build thence a line to the Pacific. The proposal, however, was not acceptable to the Government as not providing a Canadian route and in fact the final move came on the part of a young rival, the Canadian Northern (to use the name adopted somewhat later). This line had its origin in the enterprise of a remarkable partnership in railway construction and operation—the firm of Mackenzie and Mann, who pieced together a series of lines in Manitoba, beginning in 1895 with a short line chartered as the Lake Manitoba Railway and Canal Company, and including a lease of the Manitoba extension of the Northern Pacific. Aided by the various governments the Canadian Northern was completed from Winnipeg to Port Arthur by 1902. In spite of the freedom with which governmental assistance was given, the original portions of the road were constructed, equipped, and operated with great economy.

MONOPOLY AND FREIGHT RATES

The objections raised against railway monopoly in the West had, as has been seen, been partly met by the abrogation of the Canadian Pacific's monopoly of territory and the beginnings of competitive lines. Another provision of the Canadian Pacific charter that aroused increasing apprehension was the one under which Parliament had agreed to abstain from regulating freight rates and tolls on the western main line in such a way as to reduce the net earnings of the company to an amount less than would be sufficient to permit the payment of an annual dividend of ten per cent upon its ordinary shares. In point of fact, at the time of the granting of the Canadian Pacific charter, there existed in Canada no adequate machinery for the regulation of rates. Not until 1888, did Parliament, following the example of Congress in relation to the Interstate Commerce Commission, see fit to grant certain restricted powers of rate regulation to the then existing Railway Committee of the Privy Council. From this supervision the terms of its charter exempted the Canadian Pacific; and it was not until 1897 that modification of the company's charter rights in respect of rates was secured by means of the famous Crow's Nest Pass Agreement.¹ Under this agreement the Canadian Pacific undertook, in return for a Government subsidy of \$3,360,000 on the construction of a line from Lethbridge to Nelson over the Crow's Nest pass, to make, as of January 1, 1898, certain reductions in the rates on specified classes of freight and merchandise west-bound from points east of the head of the Lakes to points west thereof on the main line; and, on eastbound shipments of grain and flour from points west of the head of the Lakes to points east thereof, to make a reduction of 3 cents per 100 pounds. Eventually these Crow's Nest pass rates, extended to all railways, were to form the basis of the western freight rate structure. Mean-

¹ 60-61 Victoria, Chap. 5.

while on the Crow's Nest pass line itself the Canadian Pacific agreed that rates should be approved by the Government or by a Railway Commission.

Not until 1903 did the Railway Commission contemplated in the Crow's Nest Pass Agreement take shape in the form of a Board of Railway Commissioners of Canada a statutory body entrusted (except in the case of Government lines which were originally excluded from its jurisdiction) with the determination of questions relating not only to rates, but also to train services and safety appliances.¹ In the meantime, however, the introduction of railway competition in the West had begun to alleviate the apprehension of the western people regarding freight rates and monopoly.

THE TURNING POINT IN RAILWAY DEVELOPMENT

As the period of economic expansion continued into the early years of the twentieth century it became clear that the Canadian Northern would not be content with anything short of a complete line from the Pacific to Atlantic tide-water; while the Grand Trunk also was again intent upon extension westward. The problem arose as to whether it would be feasible to secure co-operation between the Canadian Northern and Grand Trunk leading to one, instead of two, additional transcontinentals. The former acting as the western and the latter as the eastern link in the chain. Negotiations to this end were conducted in 1902 and 1903, but it proved impossible to arrive at terms.

The die was cast in 1903, with the conclusion of an agreement between the Grand Trunk and the Government, and the passing of an act for the incorporation of the Grand Trunk Pacific Railway, a company owned by the Grand Trunk.² Directed primarily to the provision of an all-rail route that would make Canadian shippers independent in all circumstances and in all seasons of the railways of the United States and of its bonding privilege, the plan called not for an adaptation of existing resources, but for a completely new and costly transcontinental line constructed under the aegis of the Grand Trunk, the eastern section directly at the public expense, the western section at the expense of the Grand Trunk, assisted by Government guarantee. To add to its obligations, the Grand Trunk acquired, a year later, the Canada Atlantic Railway which provided it with a second connection between the Georgian Bay and the American seaboard. At the same time, the Canadian Northern was to be assisted to the attainment of its more economical ambitions. The spout of the western hopper, to the smallness of which Sir William Van Horne had drawn attention, was now to be enlarged almost to the size of the hopper itself.

The statutes and agreements embodying the new policy provided for a line from Winnipeg to the northerly Pacific port of Prince Rupert along the same general route as that followed by or projected for the Canadian Northern. A portion of the cost, which proved to be greatly in excess of the estimate, was guaranteed by the Dominion Government, the balance by the Grand Trunk. This line, the Grand Trunk Pacific proper, which was commenced in 1905 (almost coincidentally with the completion of the Canadian Northern between Port Arthur and Edmonton) was not designed to form a transcontinental link with the old Grand Trunk in southern Ontario and Quebec, but with the so-called National Transcontinental, which the Government itself undertook to construct, under the joint supervision of the Grand Trunk and a Government Commission, from Winnipeg across unopened country to Quebec, where by a work of great cost and engineering magnitude, which twice collapsed during construction, the St. Lawrence was to be bridged and a short route provided to the maritimes.

¹ Revised Statutes of Canada, 1927, Chap. 170. Its powers were increased in 1919 to include the determination of route-map applications.

² Statutes of Canada, 1903, Chap. 71.

The eastern terminus would be Moncton, N.B. In addition a connection between the National Transcontinental and lake Superior was to be constructed by the Grand Trunk, which agreed also to equip the whole Government section and, upon completion, to assume its operation under lease on terms of no rent for the first seven years and 3 per cent of the cost of construction annually thereafter. In this case, as in the case of the Grand Trunk Pacific, the final cost of \$168,000,000 greatly exceeded the estimates, while another twenty-two and a half millions was added by the Quebec Bridge.

THE SITUATION REVIEWED

These ambitious plans were formed during the opening years of the twentieth century, when the extension of western settlement appeared to be out-running the existing railway mileage. The Canadian Pacific line which had first precariously spanned the continent, largely with the help of direct subsidies, had achieved through skilful management and national growth a comprehensive system both east and west, and a position of financial strength and independence.

In Central Canada, the Grand Trunk, its earlier financial vicissitudes apparently dispelled by the vigorous management of Charles M. Hays, was acting with renewed force and reputation; while, in the maritime region, the Government line continued to serve its necessary and important purposes at a cost to the public which was not excessive.

The decision, however, to add to these lines, and to the western lines of the Canadian Northern, such additions as would create in the total three complete transcontinental railways, changed the whole aspect of the railway situation in Canada. The policy of expansion was determined upon, and construction begun, in the atmosphere of the early years of the century, when almost unlimited growth was predicted for Canada. Here and there voices were raised in protest, but without avail. Even the resignation of the Minister of Railways and Canals was unheeded. It was not long, however, before less favourable conditions made it apparent that railway construction had too far anticipated national growth.

DISTRESS OF CERTAIN RAILWAYS

Even before the new lines had reached completion, a period of extreme depression intervened, land speculation collapsed, and in spite of the northerly extension of the wheat belt through the discovery of a seed-grain that could be brought to maturity in the shorter seasons of the more northerly latitudes, western agriculture and settlement experienced a severe restriction. As for the railways, increasing capital charges combined with inadequate revenue obliged both the Grand Trunk Pacific and the Canadian Northern to fall back repeatedly upon the public treasury, although, in the case of the original Grand Trunk lines, earnings were still sufficient to pay the usual dividends. The outbreak of war found both of the new transcontinental systems incomplete and in a state of serious financial embarrassment. The Canadian Northern, in spite of Government guarantee to nearly half the amount, was unable to secure the \$100,000,000 which it estimated as necessary to complete its enterprise; and both systems, with restriction of traffic and heavy fixed charges threatened to collapse.

While, in the result, the Canadian Northern, with State aid, attained a scamped transcontinental service, the anticipated transcontinental service by the Grand Trunk never became effective, the company refusing, on the ground of excessive cost of construction, to take over the operation of the National Transcontinental upon its completion in 1915. In consequence, the Grand Trunk Pacific, inadequately furnished with branch lines, was left unconnected with the East; and the National Transcontinental built to an unnecessarily high standard was operated by the Government in a desultory way, and at a heavy

loss, as a development road. In a little more than ten years, the whole railway situation had passed from a position of manageable cost and moderate expansion to one of financial confusion and over-extension.

EFFECT OF THE WAR UPON THE RAILWAYS

The war proved to be a severe strain upon most of the Canadian railways, while, of course, the other methods of transportation were not seriously affected. The rise in cost of labour and materials, virtual cessation of immigration, closing of international money markets, and technical problems of operation combined to create a very difficult situation.

With a well-equipped and co-ordinated service, and with ample resources to met any strain that had been thrown upon it by fresh construction in the northern prairies, the Canadian Pacific was able to sustain the increased physical burden of wartime transportation. But on the other two chief railways, already severely crippled financially, the war imposed even from the operating point of view, an insupportable strain. In the first place it threw upon their incomplete transcontinental services a burden of traffic which, in their disconnected, unco-ordinated condition, they were unable to handle with efficiency and despatch; and the resulting congestion created in its turn a necessity for immediate and heavy expenditure on connecting lines, terminals and equipment, for which neither of them was able in the midst of war to find the funds. In these circumstances, the two incomplete systems, so much of whose recent construction rested on Government guarantees, found themselves entirely dependent upon the Treasury, the Grand Trunk (whose cash advances to the Grand Trunk Pacific by the beginning of 1916 exceeded \$25,000,000 with guarantees on bonds of nearly \$100,000,000) declaring that it was at the end of its tether in the West, and that the only alternative to further assistance was a receivership. To such an extent had the Treasury become involved in the plight of the Grand Trunk, on behalf of whose subsidiary \$54,000,000 had already been advanced from public funds apart from guarantees, and so close had become the connection between the Government and the Canadian Northern through acquisition of a portion of that company's stock in consideration of subsidies and guarantees, that the Cabinet, also apprehensive of a serious breakdown of transport in time of war and fearful of the effect upon public credit of allowing the railways to go into bankruptcy, appointed a Royal Commission to investigate and advise.

DRAYTON-ACWORTH COMMISSION

The conclusions of this commission, which were not available until April, 1917, took the form of a majority report commonly known as the Drayton-Acworth report, and a minority report by the chairman, Mr. A. H. Smith, of the New York Central Railroad. Both reports found a condition of over-extension, unnecessary duplication, deficient equipment and complete financial impotence in the case of both the Canadian Northern Railway and the Grand Trunk group. Both reports recognized the urgent necessity of reorganization and co-ordination if continued congestion was to be avoided and the drain on the public finances in any degree controlled. Finally, both reports recognized the disastrous situation of the Grand Trunk in relation to the Grand Trunk Pacific. In their recommendation, however, the commissioners differed. Messrs. Drayton and Acworth, deprecating not only further advances to either railway, but also any further relief of the Grand Trunk from its western obligations, urged, though with great reluctance, the immediate assumption of control by the Government of both the Canadian Northern and the Grand Trunk group under a species of foreclosure, with practical consideration for holders of equity securities. The only alternative in their opinion was a receivership, a course which, in view of

the Government's close association with both of the new transcontinental enterprises and the heavy loss that would result to the investing public, they dismissed. They proceeded to recommend the vesting of these properties, thus acquired, together with the Intercolonial and National Transcontinental, in a self-perpetuating Board of Trustees consisting of five members appointed initially by Parliament to operate the united Government lines on a non-political basis for the benefit of the people of Canada.

The dissenting report of Mr. A. H. Smith, on the other hand, expressed not only apprehension of a proposal that would have the effect of adding approximately \$1,000,000,000 to the direct debt of Canada, but also doubt as to the adequacy of the machinery proposed by his colleagues to obviate what he considered the inherent defects of any scheme of public ownership and operation of railways. The solution proposed by him involved a further revision of the Government's agreement with the Grand Trunk that would free it from its western entanglements and permit a continued operation by it of its eastern lines, with which, he proposed, there should be consolidated the eastern lines of the Canadian Northern. A corresponding consolidation under the Canadian Northern of its western lines and those of the Grand Trunk Pacific was also recommended, with Government operation or control of the lines intervening between the east and the west. Mr. Smith's report, like that of the majority, recommended an extension of the jurisdiction of the Board of Railway Commissioners that would bring within the powers of that body not only the regulation of rates for all railways, Government lines included, but also "the issuance of securities, the building of new railways or the extension of lines, and other matters properly within the scope of Government supervision."¹

ACQUISITION OF CANADIAN NORTHERN

The recommendations of the Drayton-Acworth report were adopted to the extent of the Government's assuming almost immediate control of the Canadian Northern Railway, the alternative being a continuance of Government assistance or an immediate receivership with consequent default and call in respect of the Government guaranteed securities and a heavy loss to the investing public in respect of unguaranteed securities. The Act of acquisition provided for payment of a sum not to exceed \$10,000,000 for the bulk of the outstanding equity stock (apart from what already had been transferred to the Government) the value of which, upon reference to arbitration was set at \$10,800,000.² This transaction, completed on November 16, 1917, added 9,559 miles of railway to the 4,393 miles of Government lines already included in the Intercolonial Railway and the National Transcontinental. The operation of the Canadian Northern by its own board, reconstituted by the Government was continued. Shortly after the Armistice, the operation of the Government lines, enlarged by accretions to the Intercolonial, was also entrusted to it; and the name "Canadian National Railways" as a descriptive term for the combined operating system was authorized by Order in Council.³

In 1919 an Act of Parliament incorporated the Canadian National Railway Company, a corporation designed to absorb all railways owned or controlled by the Government.⁴ The act provided for operation by a Board of Directors, from five to fifteen in number, nominated by and replaceable at the pleasure of the Government, and subject, in the matter of financial policy involving capital expenditure, to the control of the Minister of Railways and of Parliament. While the Act purported to assign to the Board of Directors un-

¹ Drayton-Acworth Report, p. CII.

² 7-8 George V, Chap. 24.

³ P.C. Order 3122 of December 20, 1918.

⁴ 9-10 George V, Chap. 13; Revised Statutes of Canada, 1927, Chap. 172.

restricted responsibility in the field of railway operation and management, it omitted the proposed safeguards against political interference recommended in the Drayton-Acworth Report. The Canadian National Railways, including the former Government lines, were, at the same time, brought within the jurisdiction of the Board of Railway Commissioners, whose powers were enlarged, however, only to the extent of supervision of the issue of free passes and the location of new lines, by means of approval of route-map applications. Decisions of the commissioners remained subject to review by the Government, and control of the issue of railway charters was retained by Parliament.

ACQUISITION OF THE GRAND TRUNK GROUP

Meanwhile, the Government having taken the stand that it would make no further advances to the Grand Trunk Group without securing the ownership of the entire system including the eastern lines, negotiations looking to a transfer had been commenced in 1917. These negotiations were still dragging on inconclusively when, early in 1919, the Grand Trunk Pacific, which had been showing heavy deficits on operations, was informed that the Government would not permit the use of the remaining proceeds of its last loan for interest charges falling due in March, whereupon, the Grand Trunk Board, having declined to make an advance for the same purpose, the president of both companies notified the Cabinet that the Grand Trunk must cease to operate the Grand Trunk Pacific as of March 10, 1919, at the latest. The Government responded with the appointment under the War Measures Act of the Minister of Railways as receiver for the western road.

In the resumed negotiations, the Cabinet maintained its refusal to release the Grand Trunk from its western obligations, except as part of an arrangement for the transfer to the Government of the whole Grand Trunk group, including the original eastern system. Such an arrangement was concluded towards the end of the year and ratified by Parliament,¹ the Government receiving the entire assets of the group, and assuming all obligations including the payment of dividends on the Grand Trunk 4 per cent Guaranteed Stock, which the company insisted should be included with the debentures as a fixed charge to be assumed by the Government. The company had, in fact, previously declined an offer by the Government to make available an annual sum rising to \$3,600,000² for distribution by the company among the various classes of equity shareholders, provided the 4 per cent Guaranteed Stock was included among the equity issues and not among the fixed charges. The new arrangement comprised in the category of equity issues only the first, second, and third preference shares and the ordinary shares, upon which last issue no dividends had ever been paid. The determination of the value of these issues was now referred to an arbitration with an agreed limit to any valuation of approximately \$64,000,000,³ and with the proviso that, in reaching a valuation, the obligations of the company, to the Government, and as part guarantor of the Grand Trunk Pacific, were not to be regarded as extinguished. The agreement for acquisition having been ratified, a joint committee of management for the Grand Trunk, appointed partly by the Government and partly by the company, assumed control of operations on May 1st, 1920,⁴ and as of that date financial responsibility was assumed by the Government. On July 12 of the same year operation of the Grand Trunk Pacific was entrusted to the Canadian Northern Board.⁵

¹ 9-10 George V. Chap. 17, assented to November 10, 1919.

² This sum was based on the average total dividends of the previous ten years as ascertained by the Drayton-Acworth Report.

³ Acquisition Agreement, March 8th, 1920, ratified by 10-11 George V, Chap. 13.

⁴ P.C. Order 1089 of May 15th, 1920.

⁵ P.C. Order 1595 of July 12, 1920.

The arbitration not having been completed by April 9, 1921, the date set by the Act, and the Government being dissatisfied with the results of joint management, the arbitration was allowed to lapse. Upon the company's agreeing two months later, however, to the establishment of a Canadian Board of Directors with a head office in Canada, the arbitration was revived; and, on September 7, 1921, a majority award by Sir Walter Cassels and Sir Thomas White—the Hon. W. H. Taft dissenting—declared the Grand Trunk equity shares to be without value. An appeal to the Privy Council against the award was dismissed.

The acquisition of the Grand Trunk group (including the Grand Trunk Pacific) gave the Government another 7,621 miles of track, and thus a total of approximately 22,000 miles at the end of 1922.

THE NEW MANAGEMENT OF THE CANADIAN NATIONAL

In October, 1922, the Government completed arrangements to secure the services of Sir Henry Thornton, formerly of the Pennsylvania Railroad and latterly of the Great Eastern Railway of England, as President and Chairman of the Board of the Canadian National Railways. Unified operation of the combined National System, including the former Grand Trunk eastern lines, began as of January 1, 1923. The lines now combined for operation by the Canadian National Railway Company comprised the lines formerly known as:—

The Canadian Northern Railway.

The Grand Trunk System

(Including the Grand Trunk Western Railroad, operating into Chicago and the Central Vermont Railway.)

The Grand Trunk Pacific Railway,

and the lines comprising the Canadian Government Railways, namely:—

The Intercolonial Railway.

The National Transcontinental Railway.

The Lake Superior Branch (leased from the G.T.P. Ry).

The Prince Edward Island Railway.

The Hudson Bay Railway.¹

Under the new management the machinery of administration continued to be provided by the Canadian National Railways Act.² The temporary Canadian Board of the Grand Trunk passed out of existence, and the former Canadian Northern officials and others who had constituted the original Canadian National Board were replaced by fifteen directors, selected on a basis of regional representation—a method which necessarily gave weight to other considerations as well as those of business capacity or technical qualifications.³

The inauguration of the new management was not made the occasion for any broad administrative changes or of any readjustment in capital structure. Behind the simple legal facade set up by the Canadian National Railways Act, there continued to exist the confusion of predecessor companies with their multiplicity of corporate entities, directorates, and securities—in all one hundred and thirty-nine separate companies with two hundred and fifty-one different issues, requiring the preparation annually of forty-two income accounts

¹ P.C. Order 115 of January 20th, 1923.

² The Canadian National Railway Act, and amendments 1919, 9-10 George V., Chap. 13, 1924, 14-15 George V., Chap. 13.

Revised Statutes of Canada, 1927, Chapter 172, 1928, 18-19 George V., Chap. 13, 1929, 19-20 George V., Chap. 10, 1931, 21-22, George V., Chap. 6.

³ P.C. Order 2094 of October 4th, 1922.

and ninety balance sheets.¹ Only the Grand Trunk was actually absorbed in the Canadian National Railway Company,² the former Government Lines retaining their legal identity, and the corporate existence of the Grand Trunk Pacific and the Canadian Northern with all their subsidiaries being preserved for technical reasons connected with certain issues of securities. Thus the administration of the Canadian National Railways, while unified from a practical and an operating point of view, remaining encumbered with a mass of legal and accounting ramifications.

THE RAILWAY ACT OF CANADA

The Railway Act of Canada applies to all railway companies and railways within the legislative authority of the Parliament of Canada. Until recent years its provisions did not completely apply to the original Canadian Government lines. Where Dominion railways connect with or cross provincial railways the Dominion Railway Act is paramount with respect to such works as are necessary to the connection or crossing.

The Railway Act constitutes and defines also the general jurisdiction and powers of the Board of Railway Commissioners, which, since 1904, has been the regulatory authority with respect to Canadian railways. The Act deals with the financing of railways; construction and location of new lines; regulations for safety; and rates of freight and passenger traffic.

DOMINION OUTLAY FOR RAILWAY DEVELOPMENT

The participation of the Government of Canada, and the application of its resources to railway development, may, for convenient reference, and also because of its historical interest, be broken into four distinct periods of railway activity.

The first period may be taken as extending from Confederation in 1867 down to about the year 1903. To this period belong the Intercolonial and Prince Edward Island Railways and the Canadian Pacific Railway.

The second period comprises the years extending from about 1903 to 1917-1920. During this period the Canadian Northern and the Grand Trunk Pacific received very substantial backing of the government in the form of guarantee of securities. The National Transcontinental Railway was also constructed entirely at government cost.

The third period begins about 1917-1920, with the collapse of the former privately-owned Canadian Northern, Grand Trunk Pacific and Grand Trunk Systems, due largely to financial difficulties incident to the Great War and to the general interference with established trends by reason of economic reaction to the great conflict. The third period ends with the creation of the present Canadian National system late in 1922, but which may, for historic convenience be established as of January 1, 1923.

The fourth period may be taken as extending from January 1, 1923, to the present time, during which the properties now comprising the Canadian National Railway system have been operated under one management.

From Confederation (1867) to December 31, 1931, the Dominion Government has expended on all railways, or pledged its credit therefor, an aggregate sum of \$2,652,539,388. By periods this sum was apportioned as follows:—

¹ The Schedule of the Canadian National Railways Act. Revised Statutes of Canada, 1927, Chap. 172, enumerate the various lines comprised in the Canadian Northern Systems alone: see also—Proceedings p. 45, Vol. 1, (Sir H. Thornton).

² P.C. Order 181 of January 30, 1923.

FIRST PERIOD (1867-1903)

Roads now comprising Canadian National System.....	\$ 114,886,224	
Canadian Pacific Railway System.....	91,703,033	
All other roads.....	3,094,578	
		\$ 209,685,835

SECOND PERIOD (1903-1917-20)

Roads now comprising Canadian National System.....	\$ 508,646,798	
Hudson Bay Railway.....	18,352,188	
Canadian Pacific Railway System.....	12,022,915	
All other roads.....	5,809,855	
		\$ 544,831,756

THIRD PERIOD (1917-20-1923)

Roads now comprising Canadian National System.....	\$1,287,888,433	
Hudson Bay Railway.....	2,373,306	
Canadian Pacific Railway System.....	21,078	
All other roads.....	479,574	
		\$1,290,762,391

FOURTH PERIOD (1923-1931)

Roads now comprising Canadian National Railways.....	\$ 576,496,951	
Hudson Bay Railway.....	28,021,189	
Canadian Pacific Railway.....	728,469	
All other roads.....	2,012,797	
		607,259,406
Grand total, cash and credit.....		\$2,652,539,388

The aggregate sum mentioned above was divided as follows:—

Cash outlay.....	\$1,366,082,181	
Liabilities for which the credit of the Dominion is fundamentally the security—		
Canadian National Railway securities guaranteed.....	\$ 970,562,290	
Canadian National securities not definitely guaranteed by Government.....	303,894,917	
Liabilities of Northern Alberta Railways.....	10,000,000	
		1,286,457,207
Grand total.....		\$2,652,539,388

Of this grand total, the railways comprising the Canadian National lines received:—

Cash.....	\$1,201,461,199	
Credit.....	1,286,457,207	
Total.....		\$2,487,918,406 ¹

The cash expenditures by the Dominion Government as to railway corporations and systems from 1867 to 1931, showing what had been contributed prior to government ownership and the amount subsequently required, is indicated in the following statement:—

RAILWAYS NOW COMPRISING CANADIAN NATIONAL SYSTEM

<i>Canadian Government Railways Group: (Direct Payments)—</i>		
Intercolonial Railways and Additions.....	\$ 294,445,172	
National Transcontinental Railway.....	169,318,185	
		\$ 463,763,357
<i>Canadian Northern Railway—</i>		
Prior to Government ownership.....	61,650,261	
Since Government ownership Sept. 30, 1917, to March 31, 1923.....	292,554,561	
		354,204,822

(1) This sum represents the proportion of Dominion Government outlay which went into lines now comprising the Canadian National railways and should not be confused with the total of \$2,669,926,371 given in paragraph 85 of the Commission's report. That paragraph has reference to Canadian National system accounts, and includes interest accrued on government loans, less certain adjustments. In it the Canadian National Capital structure is under consideration; in the above historical presentation government expenditure on railway construction and contributions of cash and credit only are taken into account.

RAILWAYS NOW COMPRISING CANADIAN NATIONAL SYSTEM—*Concluded*

<i>Grand Trunk Railway—</i>		
Prior to Government ownership.....	30,315,957	
Since Government ownership May 1, 1920, to March 31, 1923.....	107,433,649	137,749,606
<i>Grand Trunk Pacific Railway—</i>		
Prior to Government ownership.....	79,854,134	
Since Government ownership March 9, 1919, to March 31, 1923.....	42,367,362	122,221,496
<i>Canadian National Railway Company—</i>		
Subsidies, etc. to companies now within this group, but made prior to Government ownership.....	4,112,314	
Cash advanced to this company since April 1, 1923, to December 31, 1931, for disbursement to all companies comprising the Canadian National System..	119,409,604	123,521,918
Total Canadian National Railways Group.....		\$1,201,461,199
<i>Hudson Bay Railway and Terminals.....</i>		48,746,683
<i>Canadian Pacific System—</i>		
Canadian Pacific Railway Company.....	\$ 79,607,120	
Subsidiaries—subsequent to acquisition by Canadian Pacific Railway.....	10,486,793	
Subsidiaries—prior to acquisition by Canadian Pacific Railway.....	14,383,582	104,477,495
<i>All other Roads.....</i>		11,396,804
		<u>\$1,366,082,181</u>

The security issues constituting the funded debt of the constituent companies of the Canadian National System (including liabilities of ten millions connected with Northern Alberta Railways) are distributed as follows:—

<i>Canadian Northern Railway System—</i>		
Guarantees prior to acquisition.....	\$ 71,669,914	
Guarantees since acquisition.....	66,073,976	
Other securities outstanding.....	158,973,316	\$ 296,717,206
<i>Grand Trunk Railway System—</i>		
Guarantees prior to acquisition.....		
Guarantees since acquisition.....	\$ 263,433,142	
Other securities outstanding.....	51,830,775	317,263,917
<i>Grand Trunk Pacific Railway—</i>		
Guarantees prior to acquisition.....	\$ 43,432,848	
Guarantees since acquisition.....		
Other securities outstanding.....	41,159,826	84,592,674
<i>Canadian National Railway Company (Since Jan. 1, 1923)—</i>		
Guarantees outstanding.....	\$ 523,952,410	
Other securities outstanding.....	63,931,000	587,883,410
Total.....		<u>\$1,286,457,207</u>

This sum represents the following division as between guaranteed and non-guaranteed issues, for both of which, however, the Government as owner carries ultimate responsibility:—

Guaranteed securities.....	\$ 970,562,290
Unguaranteed securities.....	305,894,917
Northern Alberta Railways.....	10,000,000
Total.....	<u>\$1,286,457,207</u>

LAND GRANTS AND PROVINCIAL AND MUNICIPAL AID

In addition to cash and guarantees of securities, immense grants of land were made to railway promoters by Dominion and provincial governments, as follows:—

	Acres
Dominion.....	31,781,847
Nova Scotia.....	160,000
New Brunswick.....	1,788,392
Quebec.....	2,085,710
Ontario.....	3,241,207
British Columbia.....	8,233,410
Total.....	47,290,566

As between the Dominion and the provinces, and also as between the several railways, this acreage was thus apportioned:—

—	Total	Government owned and controlled	Canadian Pacific.	All other Roads
Dominion.....	31,781,847	5,727,002	24,953,133	1,101,712
Provincial.....	15,508,719	1,806,215	10,611,846	3,090,658
Total acreage.....	47,290,566	7,533,217	35,564,979	4,192,370

A word of explanation is necessary as to Dominion land grants to the Canadian Pacific. Under the original contract of that company 25,000,000 acres of Dominion lands were granted. Subsequently, 6,793,014 acres were returned for a cash consideration of \$10,189,521. Afterwards further grants were made of 1,710,400, principally to the Souris branch. Subsidiaries now forming part of the Canadian Pacific received Dominion land aggregating 6,139,963 acres, but at the time such lands were acquired by the Canadian Pacific these subsidiaries owned only 2,235,145 of these original grants. The total of the grants which may, therefore, be said to have been received by the Canadian Pacific is 22,152,531 acres.

Dominion and provincial land grants do not, however, complete the story of public aid of investment in Canadian railways. The provinces and also many municipalities assisted the promotion of railway enterprises by cash subsidies and subscriptions to shares. These reached a quite substantial total:—

CASH SUBSIDIES

Provincial.....	\$ 33,160,615	
Municipal.....	12,988,128	
		\$ 46,148,743

SUBSCRIPTIONS TO SHARES

Provincial.....	300,000	
Municipal.....	2,425,500	
		2,725,500
Total.....		\$ 48,874,243

The provinces also undertook in certain instances the guarantee of securities. In so far as these relate to railways now forming part of the National system, these guarantees have been met by the Dominion as the issues matured. At December 31, 1931, there remained, however, \$72,184,488 of these guarantees which on a strict legal accounting would still rank as liabilities of provincial governments.

Omitting the guarantees last referred to (they already form part of the funded debt due the public as previously dealt with) it will be seen that the total investment in cash or credit of the Dominion, provincial and municipal governments of Canada amounts to \$2,701,413,631. Setting a value of one dollar an acre on lands granted, this figure becomes \$2,748,704,197. As there are 42,075 miles of first main track steam railroads in Canada to-day, it will be seen that the federal, provincial and municipal contribution to the provision and operation of Canadian railway facilities since Confederation has amounted, roughly, to \$65,300 a mile.

TRANSPORTATION DEVELOPMENTS SINCE THE WAR

All the machinery of transportation within Canada showed a marked development in the years following the war. This expansion of facilities, so far as they had to do with the two principal railway systems, have been most fully dealt with in the report proper, with which this historical reference is designed to appear as an appendix. It remains, therefore, only to deal briefly in conclusion with the developments during the past decade in related fields of transport, such as waterways, airways and roadways.

(a) WATERWAYS

As this is written, two announcements of great moment have been made as affecting the Great Lakes-St. Lawrence navigation system, one, the final completion and official opening of the Welland Ship canal, which has been under construction since 1913, with a period of shut-down during the war; and the other the negotiation of a treaty between Canada and the United States for a proposed deep-water development for navigation and power of the international rapids section of the St. Lawrence river which, between lake Ontario and lake St. Francis, forms the boundary between the two countries. Coincident with this latter work would be the development by the Dominion for navigation of the purely national section of the St. Lawrence river, between Montreal and the head of lake St. Francis, a work already in part provided for by an arrangement with the corporation having in hand the power development at Beauharnois, which project is being adapted to fit in with the general scheme for the improvement of through navigation.

The plans for the proposed deep-water development of the St. Lawrence between lake Ontario and Montreal provide the same standard of navigation facilities as the Welland, and for the development of almost two million horse power of hydro-electric energy in the international section, while there is available a further two and a half million horse power in the purely national section of the river, the development of which for power, as and when required, is under the jurisdiction of the province of Quebec and subject to provincial policy and direction.

Welland Ship Canal

The Welland Ship canal is the fourth canal to be constructed between lakes Erie and Ontario, during the hundred years that have elapsed since the work of circumventing the falls of Niagara was first undertaken. The project, which is twenty-five miles in length, provides for a depth of twenty-seven feet in the canal reaches, while future enlargement is provided for by a depth of thirty feet in all locks and permanent structures. The useable length of the locks is 820 feet; the useable width 80 feet; the lift of each lock is $46\frac{1}{2}$ feet, and the total elevation $326\frac{1}{2}$ feet. A unique feature is the provision of three twin locks (Nos. 4, 5, and 6) in flight at the Niagara escarpment, by means of which

vessels may be passed simultaneously in both directions. The locks themselves are similar to the Gatun locks of the Panama Canal which, though of somewhat larger dimensions, have an aggregate lift of but 85 feet. The perpendicular distance from the coping of Lock No. 5 to the bottom of Lock No. 4 is 130·8 feet. The Horseshoe Falls at Niagara are only 28 feet higher.

The new canal consists of eight locks, including the necessary guardlock. The superseded canal included 27 locks, the original canal, 40. The locks are electrically operated, and the time required to fill one is eight minutes. The entire canal may be traversed in less than 8 hours, compared with 15 to 18 hours on the recent canal. The total anticipated cost of the work will be about \$130,000,000.

Canal Expenditures Generally

Upon the canals of the Dominion as a whole \$314,404,229 had been expended at March 31, 1931. Of this sum \$236,216,461 had been expended on capital account, and \$78,187,768 on operation and maintenance. As against this outlay, \$28,166,203 has been received in revenues, including tolls until 1904, when tolls were abolished. The principal revenue is now derived from hydraulic leases, rentals, elevator fees and wharfage charges. These now amount to a little over a million a year; operation and maintenance cost \$3,329,616 during the federal fiscal year ended March 31, 1931.

(b) AIRWAYS

Under the pressure of war the newest method of transportation—that by air—developed rapidly; and immediately after the Armistice consideration was given as to the possible uses of airways in Canada. It soon became apparent that the aeroplane was of especial value in reaching districts which were not readily accessible by other means, such as the far north, or sections of Northern Ontario. Services were established under various auspices to mining districts: the first regular service being inaugurated in 1924 to the Rouyn area. Similar further routes were subsequently established, and aeroplanes were used also for investigating the mineral resources of northern areas.

Early carriage of mail by air into remote districts led the postal authorities to establish regular and official delivery in such areas. Of a somewhat different nature were the air mail services meeting incoming and outgoing steamers. These were intended merely to give greater speed over routes already covered by rail. For all relative air mail routes co-operation was secured with the American services.

In relation to other modes of transportation, airways are not seriously competitive at present. The main use of the aeroplane for transportation in Canada is either to reach districts with which there are no other regular communications, or to gain speed between well settled districts. The aircraft, alone of transport agencies, is not dependent on rail, road or waterways. Within wide limits, it can follow any course.

For administrative purposes, civil aviation in Canada is divided into two classes: (1) civil operations carried out for other Dominion Government departments under the Director of Civil Government Air Operations; (2) commercial aviation, under the regulation of the Controller of Civil Aviation. Both are under the Department of National Defence, which also controls military air operations through the Royal Canadian Air Force. The total expenditure on civil air-services for 1930-1931 amounted to just short of one and a half million dollars.

(c) ROADWAYS

It is only in recent years with the development of the motor car that roads have attained their full importance for the long-distance transportation of passengers and freight. The days of turnpikes and statute labour virtually came to an end towards the end of the nineteenth century, and, particularly in Ontario, the Good Roads Association made studies which led to reforms. The Highways Improvement Act (1901) in that province organized the financing and construction of new roads. By further legislation in 1915 provision was made for a provincial Highway Department, which, in 1917, was entrusted with the construction and maintenance of provincial highways.

The growing efficiency of mechanized road transport led to constant improvement of roads, as well as to the greater use of road transport, for both passengers and freight, over distances up to medium haul. The increased use of motor vehicles can be illustrated from the multiplication of the numbers of such vehicles in Canada from 2,130 in 1907, to 1,250,000 in 1930. Similarly the total mileage of roads in 1930 had increased to 400,000, of which 80,000 miles was gravel surface or better.

As already mentioned, control of roads was vested in the provinces by the Act of 1867; but in 1919, by the Canada Highways Act, and by subsequent renewals, the Dominion Government undertook to subsidize to the extent of twenty million dollars the construction and improvement of certain highways of national importance. The work itself was undertaken in all cases by the various provinces.

One noticeable effect of the improvement in roads and the great increase in the use of mechanized motor transport was the resulting competition with railway transport. This aspect of the development of transportation can only be described as one of the most significant of modern transportation problems. More extended and detailed reference to road transport will be found in Appendix II.

APPENDIX II

MOTOR VEHICLES OPERATING ON HIGHWAYS

1. It is stated in the preamble to the Order in Council authorizing the appointment of the Royal Commission on Railways and Transportation that the diminished revenues of the two great railway systems have been brought about in part by the competition of other modes of transportation, particularly motor vehicles operating on highways, and the instruction to the Commission is to inquire into the whole problem of transportation in Canada *particularly in relation to railways*.

2. In the submissions filed before us and in the very able presentations which were made by representatives of the automobile industry and the related transport interests, questions of regulation and of taxation were dealt with very thoroughly and in great detail. Many matters so raised are primarily to be settled between the motor transport interests and the provincial authorities which build, maintain and control highways, and the adjustment and final solution thereof are not of direct concern to the railways. Whether motor car owners as a class are paying in licence fees and gasoline taxes a proper share of the costs of highway construction and maintenance and whether sufficient safeguards on motor vehicle operations on highways in the interest of the public and of the operators themselves exist in the various provinces, are essentially matters for consideration by the highway authorities of each province. Even if these matters were within the ambit of our instructions, the time at our disposal and the urgency of the immediate problem before us would prevent us from making the necessary inquiries and studies. We confine our remarks and recommendations closely to the one important consideration before us, viz., the effect present and future, so far as we can forecast it, of the competition of the motor bus and truck on railway revenues and the measures which should be taken by the railways themselves, and by the proper provincial authorities, where this competition has had, or is likely to have, the effect of curtailing railway operations to the injury of the public welfare.

I. THE PASSENGER AUTOMOBILE AND THE MOTOR COACH

3. In the nine-year period of railway history registrations of automobiles have shown very great increases. Registration is a provincial matter, and while there are some differences in the systems used in the various provinces, in general it may be said that all motor vehicles are registered by an official of a department of provincial government and that a permit or licence to operate is issued on payment of fees based on some characteristic of the vehicle such as weight, wheel base or horse-power. It is therefore possible to obtain accurate figures as to the number of vehicles in use in each province and so for Canada as a whole.

4. The following table shows registrations of all motor vehicles in Canada, and will indicate the rate of growth:—

Year	Canada
1923.....	585,050
1926.....	836,794
1929.....	1,195,594
1930.....	1,239,888
1931.....	1,206,836

Of these totals passenger automobiles in 1930 accounted for 1,047,494 and for 1,024,149 in 1931, the remainder consisting of motor trucks, buses, motor cycles and trailers. It will be at once apparent that there has been a remarkable growth in the use of the automobile in the period under review, and while the figures for 1931 show a small decline from the high point reached in 1930, due to the severe trade depression, the inference to be drawn from the figures as a whole is that the automobile has become a great and increasing factor in transportation in Canada.

5. During the same period, passenger revenues of the two railways have shown a decrease, as appears from the following table:—

Year	Passenger Revenues \$
1923.....	77,335,433
1926.....	73,709,662
1929.....	73,009,353
1930.....	61,512,742
1931.....	43,759,468

Even if the figures for the years 1930 and 1931 are discarded and the comparison made between 1923 and 1929, it will be apparent that passenger traffic on the steam railways failed to hold its own in the face of a general increase of business and in a time of great prosperity. Passengers carried in 1923 were 44,836,337 and, in 1929, 39,070,893, a decrease of 13 per cent, the reduction in revenues being 5.6 per cent.

6. The seven-year period beginning in 1923 and ending with 1929, was one of great growth in national wealth and production. Since the population growth has averaged about 2 per cent annually in the last decade, one would expect to find a growth in passenger revenues of the railways. The result can only be explained by the loss of passenger travel to the private passenger automobile and motor coach. As the total registrations of motor coaches and buses for the whole of Canada was only 2,255 in 1929, and less than one-half of these operated on rural highways outside the limits of cities and so were directly in competition with the steam railways, by far the most important factor in the failure of the railways to increase passenger earnings consonant with the general increase in population and wealth production, must have been the privately-owned passenger automobile. Figures submitted by the railways in the report of a Joint Committee of the Railways to study motor traffic as it affected their revenues made a division of passenger miles travelled in Canada in 1929, as follows:—

Agency	Passenger miles	Percentage
Passenger autos.....	11,500,000,000	78.5
Steam railways.....	2,900,000,000	19.8
Buses.....	250,000,000	1.7
Total.....	14,650,000,000	100.0

7. On a revenue basis, an estimate is made that bus line earnings on inter-urban services do not exceed 5 per cent of the passenger traffic revenue of Canadian Steam Railways for the year 1929, and the amount of \$3,650,000 to which that percentage attains cannot be looked upon as entirely lost to the railways. A considerable portion of the traffic carried by motor coaches is new business, which they have developed for themselves and which would not go to the railways if motor coach services on the highways were discontinued. Some areas

are served that the railways do not touch and the motor coach is also used by those who in default of its services would use the private motor car rather than the steam railway.

8. By reason of congested driving and parking conditions in our larger cities there is a tendency to use the motor coaches for journeys to and from those centres and to relegate the private car to the purpose of recreation and pleasure. The motor coach is often able to give what is practically a cab or livery service to the dweller in the outlying town or village or to the farmer on its route. For this reason it has a traffic peculiar to itself and its gains have therefore not been entirely at the expense of the railways.

9. Though the interurban traffic carried by these vehicles is increasing, as appears by the figures of the Gray Line Coaches, of the Toronto Transportation Group, which are as follows:—

Year	Passengers carried	Passenger earnings
1927.....	281,602	\$ 567,337
1928.....	567,193	815,285
1929.....	1,057,250	1,234,936

it has not yet in Canada assumed relatively large proportions. There will undoubtedly be further growth and further loss to the railways from this source, but as the field for the profitable operation of these motor coaches in Canada is in general limited to the more thickly settled areas of Ontario, Quebec and British Columbia where there has already been very considerable development of these services, it is likely that the steam railways have already experienced the major effects of the competition under this head, and the loss in this respect has not been so serious as is generally believed.

10. It was agreed both by the railways and by the representatives of the automotive industry and of the motor coach operators in their appearances before the commission, that the loss to the steam railways in passenger revenues is due to the private passenger automobile, and that this loss must be regarded as permanent. Thomas F. Woodlock, formerly of the Interstate Commerce Commission of the United States, in a paper on motor transport on highways published in 1931, estimates a loss by the steam railways in the decade 1920-30 of one-third of their entire passenger revenue of 1920 and all the increase that might have been expected in that period, to the passenger automobile, and he regards the loss as permanent. The loss in Canada has not been so great, mainly because of longer distances over which railway passengers are carried, and for climatic reasons which will always drive passenger traffic to the railways in certain seasons of the year.

11. The railways have estimated that if there had been no competition from the passenger automobile and motor coach in the year 1929, passenger earnings would have been \$17,000,000 more than the actual receipts. Since the motor coach may be credited with not more than \$3,650,000 of this loss, and for the reasons mentioned above probably less than this sum was actually taken from them by these conveyers, the loss to the private passenger automobile must be at least \$13,350,000, and might even be estimated at \$15,000,000. Sleeper, parlour and observation car receipts were approximately \$2,000,000 greater in 1929 than in 1923, and the Joint Committee therefore concludes that long distance passenger traffic actually increased to some extent and this is borne out by the fact that the average distance a railway passenger was carried was 74.2 miles in 1929 as compared with 68.8 miles in 1923. In the same period

commuter traffic to and from the larger cities also showed some increase, so that the inference is drawn that those who are using the motor vehicle as a means of transport to the detriment of the steam railways are the medium distance passengers, travelling not more than 75 miles.

12. Since it is likely that the provincial authorities in control of highways will continue to develop all-weather highways, especially to meet the demands of the private motor car owners, who now comprise the great majority of voters and taxpayers, medium and long haul passenger traffic will be subject to increasing losses from the operations of the passenger automobile. The completion of the Trans-Canada Highway, now under construction, and of trunk line highways in the various provinces cannot but have an adverse effect on railway passenger earnings. The economical range of operation of the motor coach in Canada, now estimated to be about 100 miles, is likely to be extended, and it would seem that there is a progressive and continuing loss of passenger traffic to be faced by the steam railways, if the present activities in provincial road building are continued.

13. Considerations of personal conveniences and not of economic costs of transportation are the governing factors in the use of the motor car and motor coach in passenger transport and as the trend seems to have set definitely in favour of the motor vehicle, the railways must adapt themselves to the situation and concentrate on service to the long haul passenger and to such commuter traffic as may remain in and about the larger centres of population.

14. The loss suffered by the entry of the motor coach into the suburban and interurban passenger traffic field could be met in part by the utilization of unit cars moving on the railways, but because of their limitations in usefulness by reason of fixed route and definite stopping places in contrast to the flexibility of the motor coach, it is doubtful if much traffic could be recovered in this way. The capital expenditure for these unit cars is out of all proportion to that of the motor coach and costs of operation are greater. The motor coach could be used on the highway by the railways as a substitute for steam trains and for the purpose of giving more frequent service where traffic is light. Provincial authorities in Saskatchewan, Manitoba and Ontario informed us that permits to operate motor coaches along highways parallel to existing railway lines had been offered to the railway companies, but in no case had advantage been taken of the opportunity. The railways have, it would seem, concluded that there is a very small field at present in Canada for the economical utilization of the motor coach as a substitute for or as auxiliary to the steam train for passengers.

II. FINANCIAL RESULTS OF OPERATIONS

15. We had little evidence before us as to the financial success of motor coach operations. In Ontario, where the services are now well established, figures were submitted by Gray Coach Line, Limited, showing that in some four or five years of operation of interurban coaches a profit had been made after all proper reserves had been set up. Counsel appearing for the Provincial Transport Company, a large operator of motor coaches in the province of Quebec with the city of Montreal as the centre of its activities, expressed the opinion that his company and other well managed companies in Quebec were on a satisfactory basis. In several cases provincial authorities consulted expressed the opinion that no profit was being made by the operators, if proper accounting standards were used. Commissioner Loree stated that his railroad, the Delaware and Hudson, had been operating a large fleet of motor buses and coaches for a period of about eight years, and that they had lost money and were now operating at a loss. Speaking broadly, it was Mr. Loree's opinion that

motor coach and bus operations in the United States were not profitable and the same was true of Canada, though there were always exceptional cases where by reason of good management and favourable traffic conditions some profit was being made.

16. Until such time as experience has proved the economic advantages of motor coach operations and that there is some assurance of a fair return on the capital invested, the railway companies have hesitated to engage in conveying passengers by motor coach even where substituted and auxiliary services in connection with steam passenger trains might seem to be indicated. Doubtless their conclusions have been that they would merely add to the loss they are already experiencing in this phase of their transportation services.

III. REGULATION AND CONTROL OF THE MOTOR COACH

17. In all provinces where motor coach services have attained to any considerable magnitude there have been in recent years progressive, and in the opinion of the officials charged with the responsibility, fairly satisfactory, efforts to regulate the traffic in the public interest. Permits are granted which in effect are franchises to operate on the highways between fixed termini, and in general these permits are exclusive, but must be renewed annually. Schedules of rates or tolls to be charged are filed with the regulating authority and time tables are required to be posted. The applicant must furnish insurance against injury to his passengers by negligence in operation and vehicles are subject to inspection from time to time.

18. The opinion was expressed by the Premier of Ontario that, so far as regulation of the motor coach on the highway is concerned, the situation is well in hand, and that a dependable service is given and one with which the public is well satisfied. The Minister of Highways in that province, remarking on the result of the introduction of regulations by his department, made this statement: "Immediately the law became effective a marked improvement not only in the vehicles but in the type of owner and operator was evident and to-day the service given on the various public vehicle routes licensed by the department is regular and dependable with few complaints of excessive speed or careless driving and with a minimum of accidents."

19. There was general agreement amongst those in charge of highways that progress had been made in handling the motor coach situation and that while changes might be necessary they were proceeding in the right way. The regulations that have been put into effect, combined with the system of granting exclusive permits, tended to put the traffic into hands of operators of financial strength, and the result was to give regularity and dependability of service with increasing satisfaction to the patrons and a greater opportunity to transact business at a fair profit. On the whole the operations of the motor coach in the various provinces are well conducted, and, so far as the public are concerned, on a satisfactory basis.

IV. TAXATION OF MOTOR COACHES

20. Taxes paid for registrations of vehicles, fees for licences or permits to operate, and the imposts on gasoline used, provide at least a fair contribution for highway use and maintenance. Figures given by Gray Coach Line Limited, in Ontario showed that a passenger coach with seating accommodation for 30 passengers, paid in 1931 \$640, being at the rate of 1.94 cents per coach mile, or \$143.38 per annum for each mile of highway used by their coaches as a whole. The average tax paid by a motor coach with capacity for 30 passengers

travelling 30,000 miles in a year was \$840, as calculated by the Minister of Highways for Ontario. In Quebec the average tax per vehicle paid by the Provincial Transport Company was \$573, being at the rate of 4·39 per coach mile. An average for all Canada was stated to be 8·5 per cent of total revenues paid in taxes to provincial authorities, being for Quebec 11·34 per cent and for Ontario 8·6. It was strenuously urged by representatives of the motor transport interests that taxation was excessive and that any further attempts to increase the burden would not be productive of increased revenue, but would only throttle an activity which had justified itself and which was meeting a public need in an efficient and satisfactory manner, and that the motor coach was now paying more than its proper share of the cost of highway construction and maintenance.

21. Though in the case of the motor truck next to be dealt with, it would appear that there is room for stricter regulation and for increased taxation; in the case of the motor coach there is little prospect that either by further taxation or increased regulation will the railroads benefit. It may be that as in the case of the common carrier truck, communities will eventually have to make a choice between steam railway services and highway services, for the reason that the traffic offering will not support both these types of transportation, but these instances in the case of motor coach services will be limited. If such do arise, and it is decided by the proper provincial authorities that the railway is entitled to give the service, this decision will be made effective, not by increasing taxation on the motor coach nor through increased restrictions and regulations, but by direct refusal to issue the necessary permit for highway operations in the particular area.

22. There does not seem therefore to be any necessity to recommend additional taxation and regulation of motor coach operations in the interest of the steam railways of Canada.

V. THE MOTOR TRUCK

23. The motor truck has become an important factor in the transport of goods and it is conceded that a great deal of traffic moving in less than carload lots, that is, package freight and express, has passed from the railway to these vehicles. There has been a rapid increase in registrations which has gone on, though at a slightly reduced rate in the years of business depression. These figures (given in round numbers) will indicate the rate of growth and the magnitude of this agency of transport.

1923.....	54,000
1929.....	155,000
1930.....	165,000
1931.....	165,800

24. It is only in recent years that there has been any attempt to classify these trucks according to the nature of their operations and even now, the provinces of Canada have not adopted any uniform scheme of classification. Some are content to register them according to weight, length of wheel base, or horse-power, and to disregard the purpose to which they are put. Where there is classification according to use, the scheme generally favoured is to divide them into classes as follows:—

1. The common carrier truck—engaged in hauling for hire for the public and plying over a definite route and generally between fixed termini.

2. Contract carrier trucks—engaged in hauling for hire the goods of one person or firm at any one time or on any one trip and not confined as a rule to a fixed route.

3. General and commercial trucks—privately owned and engaged in conveying the owners' goods.

25. In 1931 the Ontario figures were:—

Common carrier trucks.....	2,554
Contract carrier trucks including farm products carriers.....	1,119
	3,673
All others (general and commercial).....	59,873

26. There were also 9,673 trailers, many of them small and 80 per cent recorded as of less than one ton gross capacity, bringing the total of all trucks and trailers to 71,834 and showing a percentage of 94.48 as privately owned and operated as against 5.52 per cent operated as common carriers. The corresponding percentages in other provinces show an even higher proportion of privately owned and operated trucks. Manitoba had 169 operating as common carriers of goods and 39 as common carriers of milk and cream. In Saskatchewan there were only 110 common carriers and in British Columbia 226, the percentages of the total truck registrations being much less than in Ontario. A table follows showing truck registrations in all provinces in 1930 and 1931 and it is interesting to note that with certain exceptions there is an increase even under lowered business activity in the latter year.

Province	Public Freight Vehicles		All Motor Trucks	
	1930	1931	1930	1931
British Columbia.....	184	226	16,820	16,799
Alberta.....			15,068	15,034
Saskatchewan.....	29	110	18,077	15,568
Manitoba.....	140	210	9,730	9,520
Ontario.....	1,155	3,673	67,676	68,433
Quebec.....	4,680	5,218	27,820	28,384
New Brunswick.....			3,999	3,948
Prince Edward Island.....			739	802
Nova Scotia.....			6,489	6,761

NOTE.—In certain provinces, public freight vehicles are not registered or licensed except as motor trucks. In others, the marked increases in 1931 are due in part to revision of classification in the latter year.

VI. EFFECT OF TRUCK OPERATIONS ON RAILWAY REVENUES

27. Freight earnings by the steam railways show a general increase from 1923 to 1929, the figures being \$288,992,220 in 1923 and \$331,679,458 (Canadian lines only) in 1929, and during this period there was a great increase in truck registrations and in tonnage handled by trucks. The gains in railway freight revenues were due to great business activity resulting in an increase in long haul traffic with which trucks do not compete to any appreciable extent in Canada.

28. The Joint Committee of the Railways in their report estimate that if the increase in freight carried on steam railways had continued in the same ratio as in the ten-year period from 1915 to 1925 there would have been 95,000,000 tons of freight on the railways in 1929 more than were actually carried by them. The failure to gain this increase cannot however be entirely charged to trucks. The committee's estimate is that not more than 5,000,000 tons of freight were conveyed by trucks over rural highways in that year, and it is only truck operations beyond urban and suburban areas that can be regarded as competitive with railways.

29. There was a general decline in the previous rate of increase which, beginning in the late years of the decade 1915-25 becomes marked after 1925. The cause of this decline must be sought elsewhere than in motor truck competition. The opening of the Panama canal and the improvement of inland waterways have had, and are having, an effect on freight tonnage on railways and the passing of the construction and settlement era in Western Canada also has a bearing on the situation. Even without competition from the motor truck, railway freight tonnage could not be expected to show the sustained increases that were general from 1875 to 1915.

30. In making the estimate of 5,000,000 tons of freight moved by trucks over rural highways, the Joint Committee of the Railways took into account tonnage which had been developed by the trucks themselves in serving areas not reached by railways and in conveying freight to and from railway stations. In trying to arrive at the tonnage actually lost to the railways, an exceedingly difficult matter, by reason of lack of statistics, they have had recourse to reports sent in by railway agents to the Bureau of Economics of the Canadian National Railways, and for a three-year period they have arrived at an estimate of tonnage lost by the railways to common carrier and contract carrier trucks as follows:—

1928.....	422,000 tons
1929.....	979,000 tons
1930.....	1,489,000 tons

31. Since experience of several trucking companies indicates the average revenue per ton handled is \$8, the total loss to the railroads was rather less than \$8,000,000 in 1929 and \$12,000,000 in 1930. Losses due to the operations of privately-owned and operated trucks, which for all Canada are about 96 per cent of the total of all trucks and for Ontario, 94.5 per cent of the total for that province, is more difficult still to estimate.

32. The Joint Committee consider it fair to take the same amount as for the common carrier truck, as being directly lost to the railroads. The Ontario traffic census, conducted by the Department of Highways for the past few years indicates that 70 per cent of the freight tonnage moves on common carrier and contract carrier trucks over the King's highways and only 30 per cent on privately-operated trucks and the department deduces from these figures that the operations of privately-owned trucks are largely confined to the urban and suburban areas where they are not directly in competition with the railways.

33. If the railways are correct in their estimate of 1,500,000 tons for common carriers in 1930, it would seem from the Ontario figures that they are well within the mark in estimating their loss to the privately-operated truck in an equal amount. It may be that the percentages ascertained by the Ontario traffic surveys would not obtain in other provinces, for the proportion of common carrier trucks in that province is greater in relation to the total truck registrations than is the case elsewhere, and in Ontario, by reason of the proximity of towns and cities to one another and to the large centres of distribution, the field of operation for the common carrier truck has been more advantageous than in other parts of Canada. Even making allowance for the comparatively small operations of these common carriers in the other provinces as compared with the privately-operated trucks, it is unlikely that these latter vehicles did in all Canada convey as much freight directly competitive with the railways as the common carrier trucks. The estimate of \$24,000,000 lost in freight revenues in 1930 being about 7 per cent of total freight revenues is probably too high, but even if this amount is reduced to say \$20,000,000, the loss is very considerable and of tremendous import to the future of the railways of Canada.

34. Common carrier trucks are increasing rapidly in all provinces and though experience of their operations is too short to form a final estimate as to their ultimate place as an agency in the transport of freight, it would appear that unless their operations are being conducted on an unsound basis of cost and will therefore decline, or unless some form of restriction and limitation of their activities is brought about by competent authorities, a progressively increasing loss will be experienced by the railways in the future which cannot fail to have a damaging effect on earnings.

VII. FINANCIAL RESULTS OF CARRIER TRUCK OPERATIONS

35. Information as to the results of common carrier truck operations from a financial point of view was meagre. A representative of the Rural Motor Distributors of Northern Alberta stated that no profits were being made in trucking by reason of competition amongst the truckers themselves. The Manitoba Bus and Truck Operators Association expressed the opinion that operations in that province were on a satisfactory basis as to costs, but the Public Utility Commissioner, to whom applications for permits are made by members of the association, stated that representations were continually being made to him that the operators were not making a fair profit. In Ontario figures for six unnamed freight transport companies were filed by the representative of The Canadian Automobile Chamber of Commerce and the Truck Owners Association which showed that over a three-year period profits, where made at all, were small and that three of the companies were operating at a loss in 1931.

36. These truck owners expressed a desire to have minimum rates for the carriage of goods fixed by a competent body, as they feared that there would be many failures amongst their number if unrestricted competition in rates continued. As a general rule the provincial authorities have not endeavoured to fix tolls for truck services. Manitoba has a tariff but admits it is evaded. Ontario made an attempt to fix rates but has abandoned it for the present until more experience is gained.

37. Until there is regulation and fixing of tolls, as in the case of the motor coach, operating conditions will be chaotic and there will be many failures amongst common carriers of freight, but it is not likely that there will be any considerable diminution in the competition that the railways are now experiencing from this service. The experience in all the provinces has been that when an operator drops out because of financial difficulties, another appears to take his place.

VIII. TAXATION OF MOTOR TRUCKS

38. From various quarters there have come to the commission suggestions that the operations of the motor truck on the highway should be regulated. Regulation in these suggestions generally meant restriction, and restriction was to be attained by higher taxation, particularly for the common carrier truck. At present there is very little in the way of regulation of trucks throughout Canada, and there is a lack of uniformity in the method of imposing taxation. In general a fee is charged for registration of the vehicle and in some instances a charge is made for a special permit to operate as a common carrier. In Ontario where the experience in dealing with the carrier truck is greatest, it is admitted by the provincial authorities that taxation has not been applied to carrier trucks as successfully as to motor coaches. An attempt was made to take a toll per ton mile, but there were so many ways of evading it, that the plan was in operation only about three months. Instead permit fees have been increased, and the registration fees on all trucks advanced in that province for 1932, on the principle that motor trucks have not been paying a proper share of the burden of highway maintenance and that these fees offered the only practicable method of taxation.

39. Taxation of motor vehicles, as has been stated earlier in this discussion, is a matter of provincial concern. It is not likely that any province of Canada will seek to restrict the operations of these vehicles by imposing excessive fees for registration and for permits. The revenues obtained from licences and permits are not generally applied to road maintenance, nor is any attempt made to equate motor vehicle taxation to highway costs. Motor licence fees and gasoline taxes are a dependable source of revenue and the rate of taxation applied is likely to have relation to provincial revenue requirements rather than to direct highway costs. Under such circumstances uniformity in taxation throughout Canada is improbable, even if it is desirable. There may be a tendency in adjoining provinces to make charges approximately equal on similar vehicles, but the movement towards uniformity is not likely to go further.

40. It is not in the interests of the railways that taxes on these vehicles should be so high as to be prohibitive or even restrictive. The motor truck is a necessity in transport. Freight movement to and from railway stations must take place on the highway, and industrial and agricultural development would be retarded by taxation which might be designed solely to bring about restriction of the use of motor trucks on the highways.

41. At the same time the trucks should pay a fair charge for the use of the right of way which is provided for them by the State, and it would seem doubtful if the scale of fees for registration in the various provinces, even when the gasoline tax is taken into consideration, does provide for a satisfactory contribution from these conveyers. In comparison with charges in many of the states of the Union, Canadian registration fees for trucks are low. Public freight vehicles in Ontario paid on the average about \$112 for permit and registration in 1931. In Manitoba about \$64 in the same year. In Saskatchewan slightly less than in Manitoba. Fees charged for similar vehicles in the United States ran as high as \$750 in the same year and were in general much higher than in Canada.

42. The fees mentioned as being paid in Canadian provinces are exclusive of gasoline taxes, which are considerably higher in Canada than in the United States, and therefore the disparity is not so great as might appear. Including gasoline taxes it was estimated that the average for common carrier trucks in Ontario in 1931, on a basis of 30,000 miles travelled in a year, was \$215. Both permit fees and gasoline taxes have been increased in that province in 1932, and protests have been made on the ground that taxation has passed the limit of the operator's ability to pay and has become prohibitive.

43. It is beyond the scope of our inquiry to deal with questions of provincial taxation and the matter is one which must be settled between the motor transport interests and the provincial authorities. Relief to the railways from the inroads being made by trucks into freight earnings will come by restriction and regulation of truck traffic as distinct from taxation, and by some form of co-ordination with rail traffic.

IX. REGULATION OF MOTOR TRUCK TRAFFIC

44. Of regulation, as apart from taxation of the motor truck, there has been little attempted and less accomplished. Provincial highway authorities are all agreed on the importance of the problem. In the first place, it would appear that gravel surfaced roads would in large areas be perfectly satisfactory for the traffic of the passenger automobile, but the truck requires a hard surfaced road, and if it operates on the former the damage done is excessive unless speed and weight are regulated.

45. Secondly, from the point of view of safety of the private car-owners and the public generally, there will have to be regulation of the size and length of motor trucks and motor trains and of the speed at which they operate. Congestion of the highways is leading to a demand that those who use it for commercial purposes shall give way to the tourist and private automobile.

46. Thirdly, there is a growing realization that conditions of operation must be equalized as far as possible between the railway and the truck. The truck cannot replace the railway and it must not be allowed to completely strangle its competitor and leave the country without an essential transport service.

47. It is only in the last of these reasons for regulative and restrictive action that the railways have any direct interest. As provincial taxpayers the railways might well join with other property owners in pointing out that expenditures to provide permanent roadways for the commercial operation of carrying goods in direct competition with existing carriers, travelling on their own right of way, built and maintained at their own cost, is unjustifiable, and that a halt in the program of construction of hard surfaced roads is advisable.

48. They might also very well complain that while they are compelled to expend large sums for road-crossing signals and safety devices and to assist in the construction of subways and overhead crossings, that motor traffic may not be endangered by railway operations, the annual record of motor accidents from excessive speed and undue congestion on the highways is rising at an alarming rate and that little or nothing is being done to deal with the situation. In these matters, however, comment from the railways would be regarded as special pleading, and complaints and warnings from interested parties are of little use in arousing public opinion, from which source alone action will come.

49. In regulations designed to bring railway and motor truck to conditions of operating equality, there is a direct interest for the Canadian railways. We doubt, however, if regulations framed for such purposes will be satisfactory. Freight carriage by motor and by steam train should not of necessity be subject to the same conditions. If there are railway operating conditions that make freight carriage costly, then the solution is not to extend such conditions to carriage by motor truck in order that there may be equality of competition.

50. Carriage of goods on the highway should be regulated in accordance with characteristics of the motor vehicle itself and not by adopting regulations applicable to traffic carried on under different conditions. The purpose of regulation should not be to increase the expenses of motor carriers and so bring about equality of working conditions, but rather to regulate for the safety of the public, protection for cargo carried, to secure for those employed in the industry fair working conditions, and the preservation of the highways.

51. Regulations framed for these purposes are within the competence of highway authorities to devise and police administration to enforce. Already considerable has been accomplished in these matters in Ontario, Quebec and Manitoba. Alberta, Saskatchewan and British Columbia are moving in the same direction, and are profiting from the experience of their eastern neighbours. If trucks operating under proper regulation and paying a fair share of highway costs still continue to encroach upon railway earnings so as to imperil the financial position of these carriers, and it seems entirely probable that they will do so, then the problem must be approached from a different angle and a definite policy of restriction of truck traffic and its co-ordination with railway traffic must be adopted.

X. RESTRICTION OF MOTOR TRUCK COMPETITION

52. In two different and quite distinct aspects is the competition of the motor truck with the railways of direct significance to the public. Railway freight rates have been established on the basis that the steam railway enjoyed a monopoly of the carriage of goods. In the main tolls are high in relation to actual cost on package freight and express carried for short and medium distances, and low and comparatively unremunerative on bulk and heavy commodities moving over long distances. This freight rate structure has been developed not primarily in the interests of the railways but for the benefit of the producers of raw materials which must find access to distant markets at low cost.

53. The motor truck has found its opportunity in carrying a portion of the short haul traffic at rates less than the railways can afford, if the long haul bulk traffic is to continue at its present low rates. The motor truck cannot displace the railways in long haul traffic and in handling bulky commodities. The highways could not stand the strain or accommodate even a fraction of the trucks that would be required.

54. To revise the long distance and commodity rates upward would be a disaster to agriculture and the industries which must seek export markets where laid down costs are matters of vital concern. The country as a whole cannot afford to have the present freight rate structure seriously disturbed and the railways cannot maintain this structure if they are to continue to suffer losses in the short haul traffic.

55. In the second place competition of the motor is threatening the operation of many thin traffic lines in Canada. Motor trucks and coaches, operating along parallel highway routes, especially in the summer months, are taking sufficient of the traffic available to make it advisable or even necessary for the railways to discontinue services altogether. Communities situated along these thin traffic lines cannot expect a railway service as and when they choose to use it, and when motor services are discontinued for climatic reasons. They cannot expect that the railway will be available to move heavy and bulky materials at infrequent intervals while the motor vehicles takes the more profitable less than car load freight business. One of the rival carriers must be dispensed with and in the majority of cases in Canada, the railway must survive.

56. In the more thickly settled areas in Canada, relief may be found in establishing zones for truck operations. The truck has its place in the movement of goods, but its proper function is collective and dispersive and not that of a primary carrier. In a properly co-ordinated transport system, the railway would assume the main burden of the carriage of goods over distances exceeding fifty miles and the trucks would operate as collectors and distributors of freight.

57. Trucks might be licensed only for operations within reasonable distances of manufacturing and distributing centres, which should be fixed by the highway authorities of each province after consultation with the railways and the shippers immediately concerned. As a condition of the establishment of zones the railways might be required to give a more frequent service and to simplify their freight classifications and modify the present onerous requirements as to crating and packing. As the railways develop pick-up and store delivery service, to which they are now giving serious attention, there will be less objection by the public to zoning of truck operations and to the consequent restrictions in the freedom of movement of these vehicles over the rural highways.

58. In the case of thin traffic lines, it would seem that, as a matter of policy, provincial highway authorities will have to make a choice between the motor and the railway, and refuse permits to the common carrier truck and coach. In some cases the railways could assist by giving more frequent service with unit cars, reserving the steam-operated trains for the carriage of heavy commodities when a full load offered. The experiment has met with a fair degree of success in the case of the Winnipeg Water District Railway, operating easterly from St. Boniface for some 60 miles.

59. It is realized, however, that there are many difficulties in conducting branch line operations with unit cars and that the railways have already given these cars very careful study and trial. There are limits to the usefulness of these unit cars arising from their high initial cost and expense of maintenance, and their lack of reserve power when operating under adverse climatic conditions, that will prevent them from going into general use as substitutes on all thin traffic lines throughout the country. Very properly the railways are proceeding cautiously and after careful study of the traffic and of operating costs and conditions in their plans for utilizing these new units.

60. The related problems of regulation and restriction of motor traffic on the highways could best be dealt with by a conference of the highway departmental officials of all the provinces meeting in conference at the instance of the Federal Government. At this conference the broad lines upon which, for example, the regulation of common carriers of goods and merchandise could be effected might be laid down as follows:—

- (a) Schedules of rates and charges must be published.
- (b) Within that schedule common carriers must accept and carry what is offered without discrimination between shippers.
- (c) Operators must be insured against all risks, including third party risks.
- (d) Operators must keep accounts on a prescribed system and render returns to public authorities on a common basis.
- (e) Uniform bills of lading must be used and a copy given to all shippers.
- (f) Minimum standards in regard to working conditions, including wages and hours of labour should be required.
- (g) Due regard must be had to the preservation of roads and to the safety of the public.

61. Similar principles might be applied *mutatis mutandis* to road passenger services.

62. The administration and adaptation from time to time of the agreed principles of regulation of road transport should be left to the highway authorities of each province, and it should be recognized that varying conditions will call for differences in detail in the framing of provincial regulations.

63. At this conference a body might be set up to study and report upon areas where rail services are being rendered unprofitable without being superfluous by reason of the competition of road transport, to the end that steps may be taken to restrict, or even prohibit, highway carriers in these areas. A study should also be made of the possibilities of assistance to the railways in maintaining their present freight rates structure by a zoning scheme for the licensing of all trucks as a practical step towards co-ordination of rail and motor traffic, or such other plans or schemes as may seem to promise relief to the railways.

XI. EXCLUSIVE PERMITS TO COMMON CARRIERS ON THE HIGHWAYS

64. Since the Joint Committee of the Railways in their report recommended against the granting of exclusive permits or franchises to operate common carrier coaches and trucks on highways and against minimum tolls and charges, and in favour of the free play of competition in these transport activities, an examination of the principles underlying the granting of these exclusive permits and the fixing of tolls seems desirable.

65. All provincial authorities agree in the policy of giving exclusive rights to operate motor coaches over specified routes and between fixed termini on rural highways under provincial control. In the case of the carrier truck there is not the same uniformity, but there is a general acceptance of the principle that here also there must be regulation and that regulation can only be made really effective for its chief end, that of producing a dependable service if the operations are in the control of one responsible party over a given route. Ontario, Quebec and Manitoba have definite regulations to this effect and in all provinces permits are required and the tendency is to grant these only to one operator. This has the effect of eliminating competition from other common carrier trucks and sets up a monopoly in this form of transportation.

66. The reasons for these permits are set forth in the brief of the Gray Coach Lines, Limited.

67. Previous to the entry of this company, a subsidiary of Toronto Transportation Commission, into the field of suburban and inter-urban coach traffic, motor bus operations were in the hands of irresponsible operators, many of whom were not financially stable. Equipment was poor and there was a lack of spare vehicles for peak service. Wages paid were low and drivers worked long hours. Schedules were not dependable and services were often interrupted.

68. The entry of Gray Coach Lines, Limited, backed by a responsible authority, resulted in an immediate improvement. Equipment is now fully modernized and service is maintained on a high efficiency basis. Labour conditions are satisfactory to employees both in rates of pay and hours worked. As a result there has been a marked increase in public confidence and this is reflected in increased patronage by the travelling public. In turn, the financial outcome has been profitable to the operator. Gray Coach Lines, Limited, could not have attained this position if it had been open to competition by any individual who might choose for a time to carry passengers for hire over any one of the routes assigned to them.

69. Counsel, in his submission for the Ontario Association of Motor Coach Owners, gives the policy of the Department of Highways in issuing of permits. The principles are stated to be three in number:—

- (a) Present traffic offering in the province does not warrant the issuing of more than one permit for local travel between any two points, and the public interest, therefore, is best served by permitting one responsible operator only to furnish such service.
- (b) Every permit-holder who continues to operate to the satisfaction of the department as tested by standards prescribed by it, can make the necessary investment and maintain the required service in the confidence that he will secure a renewal from time to time.
- (c) The department exercises a real supervision over permit transfers and endeavours to see that no transfer is made except to an operator of substance and reliability, preferably to an existing transportation agency in the vicinity.

70. The Chairman of the Public Utilities Board, which issues the permits in Manitoba, in his able submission puts the case for permits thus:—

The monopoly phase of the matter is only incidental. It is in the public interest that this form of transport should be dependable and to be dependable it must be in the hands of a reliable operator who can make his investment and give a service of the standard required without fear that he will suffer loss of business by a division of traffic. If permits were granted to many operators over the same route, it would be impossible in practice to enforce observance of regulations. The threat of cancellation of the permit is a real check on faulty operation where the permit is valuable and the grantee is operating at a profit or can see a profit in future operations. Maximum tolls can be fixed to protect the public and if insufficient or indifferent service is given the permit can be revoked and granted to another applicant. It is not a case of regulating a monopoly by conditions annexed to a certificate of "convenience and necessity", such as pertains in the "Public Utility" field, in the strict use of that word, but rather the grant of a monopoly for the purpose of more effective regulation.¹

71. The exclusive permit has resulted, in the case of the motor coach, in securing to the public good service and the main defect in a monopoly, that of excessive rates, has been kept in check by departmental supervision. Indifferent service is not to be feared to the same extent as in the case of a natural monopoly like a street railway or a power or light company, for the permit can be revoked and granted to another where the capital in fixed and unrealizable plant is comparatively insignificant.

72. If the free play of competition does not produce good results and makes regulation of motor transport more difficult and the attainment of satisfactory standards of service impracticable, then the provincial authorities would seem to be justified in introducing the exclusive element into their permits to operate, not for the purpose of creating property rights, but for the purpose of better regulation and control of the traffic.

73. There would seem to be little doubt that when motor truck regulations are in process of development the exclusive permit to common carriers will be found of value, but there will remain to be devised, satisfactory regulations for the control of contract carriers and of the privately-operated truck and it will then clearly appear that the permit is only an incident in the process of regulation, helpful in the case of the common carrier, but only a means to an end, and that the principles to be applied by the regulating authority to the problem in hand, must be found in characteristics which are inherent in the motor vehicle as an agency of transport and cannot be adapted from regulations which have been successful in the case of "public utilities" such as street railways, gas or power undertakings. Experience of the traffic alone will indicate the principles to be applied.

74. The following observations made by Mr. Loree, a member of this commission, on the operation of highway carriers in the United States of America call for consideration in any plan or plans which may be devised for solution of the problem in Canada:—

75. "There has been some absorption of freight traffic by motor trucks. For the most part it has been the taking over of less than carload or package freight. The cost of this movement to the railroads has been very heavy. It

¹ The evidence has been summarized. The words are those of the editor, but it is believed that the ideas are correctly stated.

makes necessary the provision of expensive freight stations on property well located in the hearts of the cities; it must be trucked twice across the station platforms, weighed and billed in small lots, stevedored in the cars at one terminal and unloaded in the other; while the loss and damage have been relatively very high. Whether or not it is a source of profit is debated, but the activity of the movement is likely to be confined within a distance represented by the ability of the truck to make delivery and return in one working day.

76. "There are in service 3,486,303 automotive trucks; of these 190,644 or 5.4 per cent only, are used in common carrier service, either interstate or intrastate and this number is so insignificant as to make any effort toward their control scarcely worth while. Along with the increase in numbers has grown an increase in carrying capacity.

77. "Control of automotive traffic must be looked for through the police power of the State to ensure safety upon the highways. The blood-letting in the business as now conducted is appalling. In 1931 there were brought to their death by this agency 34,400 persons and nearly a million received injuries. Of these more than 41 per cent were of a serious character, ranging from slight contusions to maiming and crippling for life. It is an instrument more dangerous than was the Great War. During 18 months of the Great War 50,510 members of the American Expeditionary Force were killed in action or died of wounds. During the 18 months ending December 31, 1931, 53,650 were killed in automobile accidents in the United States.

78. "During the 18 months of the Great War 182,674 members of the American Expeditionary Force were wounded, not mortally. During the 18 months ending December 31, 1931, 1,576,840 were wounded, not fatally, in the United States.

79. "We must then expect restriction of length, height and width, limitation of load, including the truck and trailer combination, mechanical restriction of speed, limitations in the hours of labour of chauffeurs, a higher standard in their character and skill and other controls to markedly lessen the appalling danger now attending this traffic".

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LIST OF RAILWAY OFFICIALS, GOVERNMENT REPRESENTATIVES, PUBLIC BODIES, AND INDIVIDUALS APPEARING BEFORE THE COMMISSION IN THE COURSE OF ITS INQUIRY (with reference to the relevant volume and page of the recorded proceedings)

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Mr. John Clancy, Winnipeg, Man.	2	369
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Mr. Cameron R. McIntosh, M.P., North Battleford.....	4	2058
Mr. William C. Pritchard, Winnipeg, Man.	2	572
Mr. John Queen, M.P.P., Winnipeg, Man.	2	573
Sir Thomas Tait, Montreal.....	4	2126
Mrs. Bertha Waite, Victoria, B.C.	1	262
Mr. A. H. Whitman, Halifax, N.S.	3	1160
Mr. Robert T. Williams, Victoria, B.C.	1	263

APPENDIX IV

LIST OF PERSONS AND BODIES FROM WHOM WRITTEN SUBMISSIONS WERE RECEIVED

Allbright, W. D...	Superintendent, Dominion Experimental Substation, Beaverlodge, Alta.
Alderson, W. H...	Muskoka Beach, Ontario, <i>re</i> train services, Muskoka district.
Anderson, S. B...	Secretary; with resolution adopted at Public Meeting, City Hall, Moncton, N.B.
Armstrong, C. N...	Managing Director, Montreal Central Terminal Company, Montreal.
Begin, J. A...	Comptroller of Provincial Revenue, Parliament Buildings, Que.
Bell-Irving...	Henry Bell-Irving & Partners, Vancouver, B.C., <i>re</i> Canadian Government Merchant Marine fleet.
Bellamy, Geo. W...	Edmonton, Alta. Representations as to railway matters generally.
Blanchard, H. P...	Ellershouse, N.S. Suggestions as to improvement of Canadian railway conditions.
Brettain, Horace L...	Director, Associations Research Institute of Canada, Toronto; Highway expenditure and motor vehicle taxation.
Brookbank, Arthur...	Secretary-Treasurer, Chamber of Commerce, Prince Rupert.
Brownlee, John...	Galt, Ontario, <i>re</i> car service charges.
Campbell, W. S...	Vice-President, Gaults Alberta, Limited, Edmonton, Alta.
Clermont, J. A...	President, Board of Trade, Cochrane, Ontario. Resolution <i>re</i> increased use of the Transcontinental Railway between Winnipeg and Quebec for passengers and for freight.
Cohen, Miss Sophie...	The Canadian Coal Supply, Toronto, Ont.
Cook, J. Stanley...	Secretary, Board of Trade, Montreal.
Cross, A. E...	Calgary Brewing & Malting Company, Limited, Calgary, Alta.
Currie, David M...	Secretary-Treasurer, City of St. Lambert, P.Q.
Dahl, C. H...	Operating Vice-President, Winnipeg Electric Company, Winnipeg, Man.
Devers, John M...	Toronto. Suggestions for the improvement of railway services.
Duffey, Geo. J...	Toronto. <i>Re</i> container system of handling freight.
Esling, W. K., M.P...	for Kootenay West, Rossland, B.C. Submitting resolutions on behalf of the Brotherhood of Locomotive Engineers at Revelstoke and Nelson, B.C.
Field, R. C...	Attorney for J. Arthur Larue, Victoria Cold Storage and Terminal Warehouse Company, Ltd., Victoria, B.C.
Gardiner, J. Rawson...	Montreal.
Gell, Wilfred R...	Secretary, Western Canada Fuel Association, Winnipeg, Man.
Grierson, J. E...	Winnipeg, Man. The relationship of railway prosperity to import trade.
Hall, Grant...	Vice-President, Canadian Pacific Railway Company, Montreal. <i>Re</i> Montreal Railway terminals.
Hawkin, E. L...	} London, England. Grand Trunk Perpetual Stocks Committee, London, England.
Hawkin R. C...	
Healey, Lt.-Col. F. P...	Managing Secretary, Chamber of Commerce, Hamilton. Brief dealing with various railway matters.
Hope, Chas. E...	Vancouver, B.C. Suggestions as to improvement of railway conditions.
Howland, Lucien B...	Peterborough, Ont. On the general railway situation.

- Hudson, A. B. Submitting statement by W. M. Scott, Chairman of the Commissioners, Greater Winnipeg Water District, Winnipeg, Manitoba, as to possible economies in railway operation.
- Imrie, John M. Edmonton Journal, Edmonton, Alta. *Re* Canadian railway policies.
- Ivey, A. R. Secretary, Retail Merchants Association, Winnipeg, Man.
- Kipp, Theodore. Chairman, Industrial Development Board of Manitoba, Winnipeg.
- Kirkwood, T. R. Montreal, *re* development of the St. Lawrence river for hydro-electric energy and for navigation.
- Lymburner, Norman. Wiarton, Ont. Transportation of express freight.
- Murin, W. G. President, British Columbia Electric Railway Company, Limited, Vancouver, B.C.
- McBain, W. W. Lakeside Coals Limited, Edmonton, Alta.
- McCrossan, Geo. E. Corporation Counsel, Vancouver, B.C. *Re* Canadian National Railway agreement; *re* Peace River Railway; *re* removal of Mountain differential.
- McDonald, S. A. President, Maritime Board of Trade, Charlottetown, P.E.I.
- McKenna, Jas. D. Saint John, N.B. The comparative advantages of Saint John and Halifax as Canadian National ocean termini.
- McLennan, Hon. John S. (Senator) Sydney, N.S. *Re* strategic position of port of Sydney from the railway standpoint.
- McMillan, J. F. President, Chisholm Sawmills, Limited, Edmonton, Alta.
- O'Kelly, T. P. Vancouver, B.C. *Re* Pacific Great Eastern Railway.
- Patterson, D. W. Secretary, Board of Trade and Chamber of Commerce, Grande Prairie, Alta.
- Pattulo, T. D. Leader of the Opposition, British Columbia Legislature, Victoria, B.C.
- Pawson, G. R. General Chairman, Canadian Pacific Commercial Telegraph Employees, Toronto.
- Payne, A. N. Secretary, The Lawson Patent Process Company of Canada, Limited, Hamilton, Ontario.
- Phillips, L. V. Kamloops, B.C. Written submissions as to the transportation problem.
- Pitts, Gordon McL. Montreal, Monograph on transportation in Canada.
- Poole, I. R. Secretary, Mountain Lumber Manufacturers Association, Calgary, Alta.
- Poole, I. R. Secretary, Spruce Manufacturers Association, Calgary, Alta.
- Reynolds, E. J. "The Mail," Winnipeg, Manitoba. An analysis of grain transportation as related to Canadian ports and routes.
- Ryan, Robert. Three Rivers, P.Q. *Re* extension of Canadian National Railways into Three Rivers.
- Sawyer, J. W. Secretary-Treasurer, United Farmers of Alberta, Grande Prairie District. *Re* Peace River outlet.
- Sclanders, F. MacLure. Commissioner, Saint John Board of Trade, *Re* increased use of West Saint John port facilities, and *re* Saint John Valley Railway.
- Seoular, John M. Manager, Island Freight Service, Limited, Victoria, B.C.
- Scott, Louis G. Vancouver, B.C. *Re* Quebec and Lake Saint John Railway Company, and the Great Northern Railway of Canada.
- Scott, W. L. Eastern Canada Livestock Union, Ridgeway, Ontario. *Re* improvements in railway livestock transportation necessary to meet truck competition.
- Sereth, Alex. Vancouver, B.C. *Re* lumber requirements, Canadian National Railways.
- Sharpe, Hon. W. H. (Senator), Winnipeg, Manitoba. *Re* Northern Ontario Railways.
- Spence, C. Secretary-organizer, Workers Unity League of Canada, Winnipeg, Man.
- Summerhayes, Rev. T. F. Toronto, Ontario. General views as to the solution of the railway problem.

- anson, W. W. Department of Economics, University of Saskatchewan,
Saskatoon, Sask.
- Ikem, Geo. A., M.L.A. . . Vancouver, B.C. *Re* Canadian National Shipyard, Prince
Rupert.
- lker, J. Alex. Engineer-Secretary, Town Planning Commission, Vancouver,
B.C.
- lton, G. H. President, Sidney Lumber Co., Ltd., Sidney, B.C.
- yman, H. E. Vice-President and General Manager, Levis Tramways Com-
pany, Levis, P.Q.
- yman, H. E. President, Chamber of Commerce of the District of Levis,
P.Q. Supplementary brief on the Canadian railway problem.
- son, Ridgeway R. Victoria, B.C. *Re* Pacific Great Eastern and Peace River
proposals.
- ght, F. Commissioner, North Battleford Board of Trade, North
Battleford, Sask.





STEAMSHIP ROUTES WITH DISTANCES			
		Geog. miles	Geog. miles
Churchill to Liverpool	2,254	Halifax to Antwerp	2,759
Montreal to Antwerp	3,281	Bermuda	750
Bremen	3,535	Bremen	3,065
Boston	3,253	Boston	389
Cape Town	7,108	Cape Town	8,437
Gibraltar	3,184	Gibraltar	2,477
Glasgow	2,493	Glasgow	2,468
Havre	3,302	Havre	2,600
Liverpool	2,750	Liverpool	2,485
London	2,141	London	2,119
Marseilles	3,884	Marseilles	3,261
Naples	4,164	Naples	3,641
New York	1,451	New York	979
St. John's	1,025	St. John's	540
Southampton	3,002	Southampton	2,560

Department of the Interior
HONOURABLE THOMAS D. MURPHY, MINISTER H. H. ROWATT, DEPUTY MINISTER
NATIONAL DEVELOPMENT BUREAU
F. C. Lynch, Director.

MAP OF THE DOMINION OF CANADA

Noted scale circles
Scale 100 miles to one inch
1922

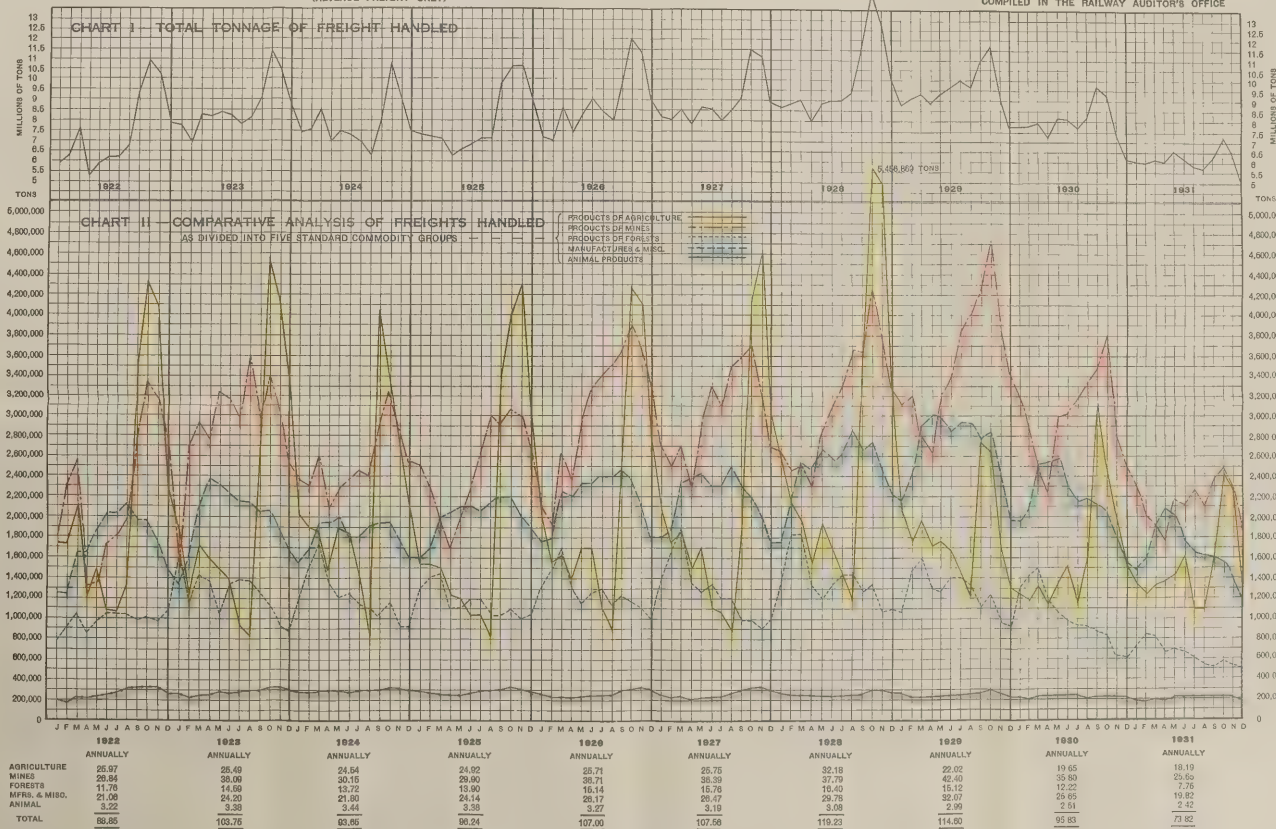
LEGEND
Canadian National Railways, in Operation
Canadian Pacific Railways, in Operation
Other Railways, in Operation
Canadian National Railways, under Construction
Canadian Pacific Railways, under Construction
Other Railways, under Construction
The Northern Alberta Railway and that section of railway running 10 miles southeasterly from Rosedale, Alberta, are jointly owned by the Canadian National and the Canadian Pacific Railways.

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1001

MONTHLY FREIGHT HANDLED BY ALL CANADIAN RAILWAYS

(REVENUE FREIGHT ONLY)

COMPILED IN THE RAILWAY AUDITOR'S OFFICE





FREIGHT TRAFFIC DENSITY DIAGRAM RAILROADS OF CANADA

FIGURES IN CIRCLES INDICATE HUNDREDS
OF THOUSANDS OF NET REVENUE AND COMPANY
TON MILES PER MILE OF ROAD ANNUALLY
SMALL FIGURES ON EITHER SIDE OF
LINES INDICATE GRADIENTS IN PERCENT

GEOGRAPHICAL SCALE
0 50 100
MILES

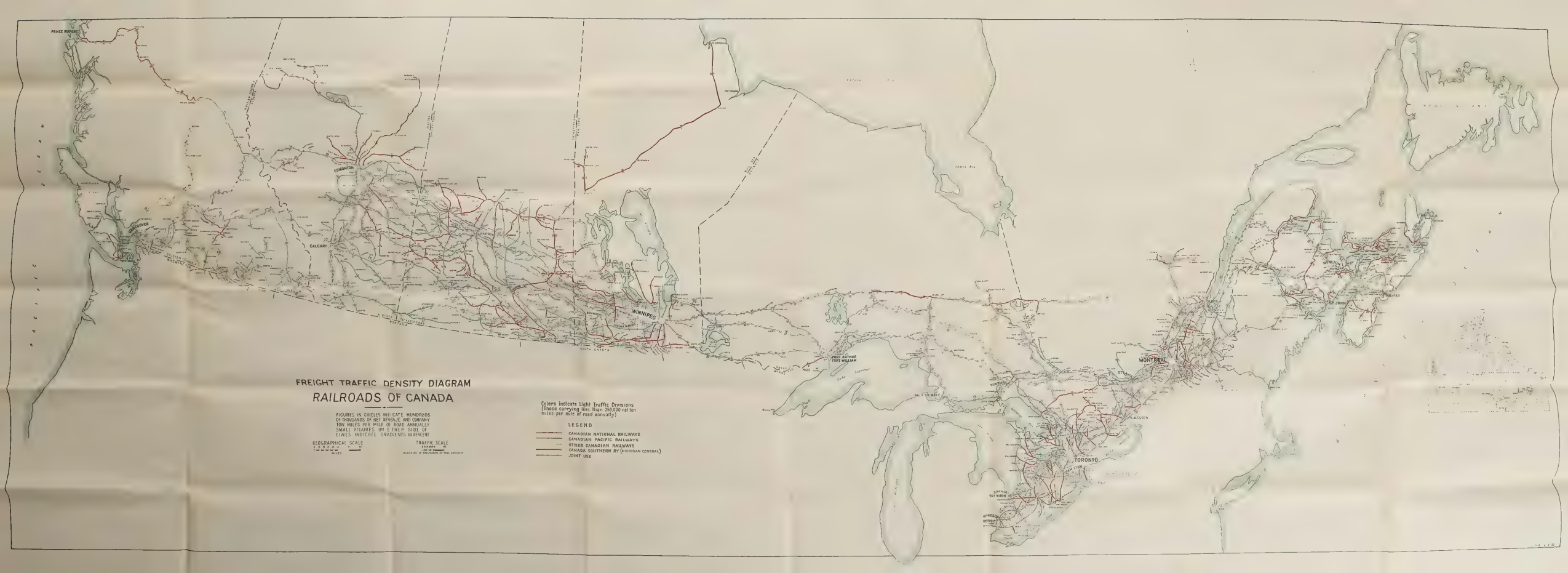
TRAFFIC SCALE
0 100 200
THOUSANDS OF TONS PER MILE

PLANNED BY THE COMMISSION OF THE CANADIAN
RAILWAYS

Colors indicate Light Traffic Divisions
(those carrying less than 30,000 net ton
miles per mile of road annually)

LEGEND

- CANADIAN NATIONAL RAILWAYS
- CANADIAN PACIFIC RAILWAYS
- OTHER CANADIAN RAILWAYS
- CANADA SOUTHERN RY (NICHOLSON CENTRAL)
- JOINT USE



Blank label area



24/10/20
31/10/20
2

